January, 1931

The MANUFACTURING CONFECTIONER

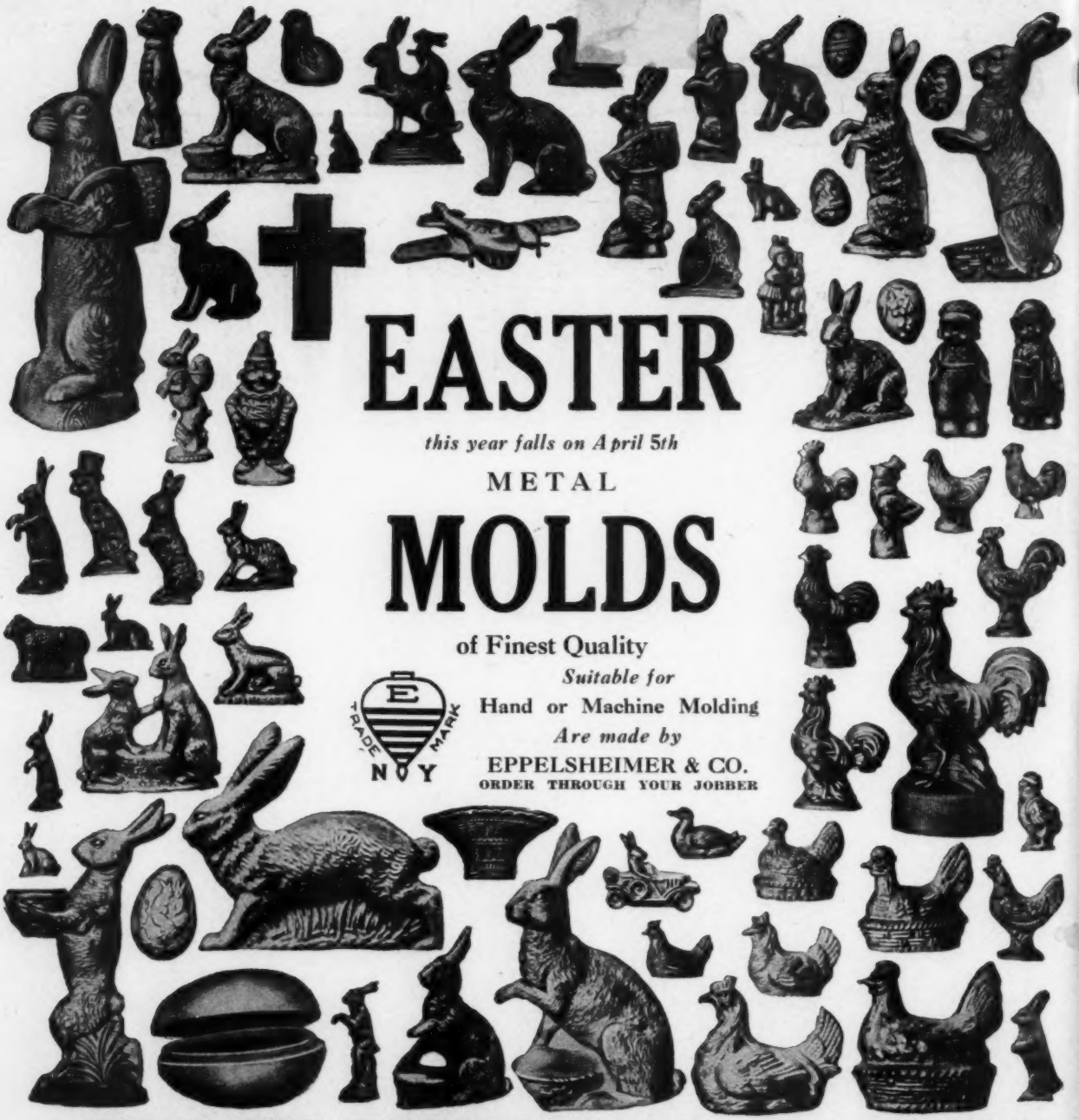
Published by THE MANUFACTURING CONFECTIONER PUBLISHING CO., MDSE. MART — Chicago, Ill.
Editorial Office, 303 West 42nd St., New York City.

Some of the High Spots of this Issue:

If You Aim to Produce the Best Chocolate . . . . . *Whymper*

Chocolate and the Colloid Mill . . . . . *Edwards*

Planning Profits for 1931 . . . . *Wells*



EASTER

this year falls on April 5th

METAL

MOLDS

of Finest Quality

Suitable for

Hand or Machine Molding

Are made by

EPPELSHEIMER & CO.

ORDER THROUGH YOUR JOBBER

TRADE E MARK N Y

EPPELSHEIMER & CO.

34-44 HUBERT ST.

NEW YORK

SEND FOR OUR

MANY NEW DESIGNS

MOTHER'S HEART BOX
MAKES A PRETTY MOTHERS DAY PIECE
EXTRA COVERS CAN BE HAD LETTERED
HAPPY BIRTHDAY
TO MY VALENTINE

The MANUFACTURING CONFECTIONER

Vol. XI JANUARY, 1931 No. 1

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D&O ESTABLISHED IN 1798

ESSENTIAL OILS and Kindred Products

The QUALITY PRODUCT plays the ace and wins each time

Improve the flavor of your candy by the use of our new line modern type fruit flavors.

Apple,
Apricot,
Banana,
Blackberry,
Cherry,
Wild Cherry,
Red Currant,
Black Currant,
Gooseberry,
Grape, Concord,
Loganberry,
Nectar,
Peach,
Pear,
Pineapple,
Pistachio,
Plum,
Quince,
Raisin,
Raspberry,
Strawberry

These concentrated flavors, moderately priced, produce an exceptional resemblance to the aroma of the fruit.

DODGE AND OLCOTT COMPANY
180 Varick Street New York City
"The integrity of the house is reflected in the quality of its products."

250602

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The Manufacturing Confectioner's Approved Advertising of

Confectioners' Machinery and Supplies

and Miscellaneous Advertising Directed to Manufacturing Confectioners

POLICY: THE MANUFACTURING CONFECTIONER *is essentially a manufacturers' publication and therefore is a logical advertising medium only for confectioners' supplies and equipment. The advertising pages of* THE MANUFACTURING CONFECTIONER *are open only for messages regarding reputable products or propositions of which the manufacturers of confectionery and chocolate are logical buyers.*

This policy EXCLUDES advertising directed to the distributors of confectionery, the soda fountain and ice cream trade. The advertisements in THE MANUFACTURING CONFECTIONER *are presented herewith with our recommendation. The machinery equipment and supplies advertised in this magazine, to the best of our knowledge, possess merit worthy of your careful consideration.*

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Gold Anchor Brand

LEMON and ORANGE OILS

THERE is a marked difference in the quality of Italian oils of Lemon and Orange emanating from various sources in Italy.

Realizing this, it is with pardonable pride that we offer our GOLD ANCHOR brand citrus oils as the ultimate in quality. They are produced for us by S & G De Pasquale of Messina, Italy, whose reputation as producers of the finest hand-pressed oils is world wide. Only rigid adherence to the superior hand-pressed method of production and the selection of the best of the Italian fruit crop, afford them this rank.

We unqualifiably guarantee that the unsurpassed strength, unvarying uniformity and freedom from rancidity of the GOLD ANCHOR oils will more than repay the consumer for the slight premium in the initial cost.

New crop prices for Italian citrus oils are quoted slightly higher than those which have prevailed for the past few weeks. In spite of these higher quotations from Italy, substantial advances are unlikely, but today's prices represent the most favorable levels witnessed in many years. We recommend purchasing at this time, and will be very pleased to submit samples and quote prices on specific quantities.

UNGERER & COMPANY

NEW YORK

Philadelphia . . . Boston . . . Atlanta . . . Toronto . . . Chicago . . . St. Louis . . . San Francisco

Coatings that "Stand Up"

MERCKENS Fondant Process Chocolate places an indelible stamp of character upon your candies.

The wise and thoughtful candy manufacturer will use Merckens for high quality and irresistible flavor.

It's Firmer

Merckens Coatings are firmer—they give to candies the body that helps the sale, and creates an appeal so necessary in candy.

THE universal acceptance of this chocolate by candy manufacturers is convincing proof it is the chocolate for you. Samples await your request—without cost or obligation.

MERCKENS CHOCOLATE CO., Inc.
BUFFALO, N. Y.

BRANCHES

BOSTON
131 State St.

NEW YORK
25 W. Broadway

LOS ANGELES
412 W. Sixth St.

CHICAGO
Handler & Merckens, Inc.
180 W. Washington St.

MERCKENS
QUALITY
CHOCOLATE
COATINGS

If you want action from your Salesmen in increasing your candy sales, put out an "ALL-FRUIT BOX" containing

BLANKE-BAER DIPPING FRUITS

Pineapple Cubes
Peach Cubes
Dipping Raisins
Dipping Kumquats
Dipping Strawberries
Dipping Cherries

Now is the time to start working on this "All Fruit Box" so as to have it ready for your "Fall drive." You should also make it a rule to include in every box of your Fruit and Nut Assortment a liberal quantity of Fruit Filled Chocolates containing these Dipping Fruits.

Write for full information and contract prices

Blanke-Baer Extract & Preserving Co.

3224 South Kingshighway Contributor St. Louis, Missouri, U. S. A.

WHAT *no flavor?*

Imagine the consternation—the reaction—on your business if your candy were flavorless.

Of course, it sounds absurd, but poor flavors are sometimes more harmful than no flavor at all.

The quality, the salability, the success of your product depends primarily on the flavors you employ.

Our flavors are recognized in the trade as the finest you can buy. Why gamble with mediocre brands?

Send for our complete catalog.

Individual attention given to special flavor problems. Consult us freely.

fritzsche brothers inc

78-84 BEEKMAN ST.
New York

Toronto
FRITZSCHE BROTHERS *of* CANADA, *Ltd.*
77-79 Jarvis St.

118 WEST OHIO ST
Chicago

"Can you tell me why my coatings crack in Winter?" he asked.

We told him.

Perhaps we can help you, too, with your candy difficulties.

A well-known manufacturing confectioner in the middle west recently sent in to our research laboratories some samples of coated bars which had caused him a great deal of trouble in the winter months.

"Can you tell me how to keep my coatings from cracking when they are exposed to extremely low temperatures?" he wrote. He wished, too, to know how to prevent swelling in the centers and how to overcome brittleness and powdering.

After careful study and a number of experiments, we were able to solve each of these difficulties for him. First of all, it was found that the addition of Roba of the proper melting point would keep the coatings from cracking at low temperatures. A change in formula and proper temperature control in the cooling tunnels and in storage overcame the difficulties he had had with his centers.

Our Research Department has been of service to a great many other confectioners in helping them to solve manufacturing problems of various kinds. Can we help you? If you have problems, tell us about them. Our research facilities are at your disposal, without cost or obligation.

PROCTER & GAMBLE, *Cincinnati, Ohio*

MAKERS OF

ROBA **the perfected confectioner's hard butter for coatings, caramels, nougats, scotches, toffees, kisses and chewing candies**

WHEN hotel guests were satisfied with bowl and basin—

—THEN, your product might have appealed to the public in spite of an unscientific application of FLAVOR

But Not Today!

Progress has changed the standard of guest comfort for the modern hotel. Just so research has changed the standard of flavor selection for the modern confectioner. No longer can he profitably employ makeshift methods of determining which type and grade of flavor is exactly suited to his product.

The house of F & J has played an important part in developing the modern method of determining flavor adaptability. Not content with supplying the trade with a full line of exceptionally high quality flavors only, it has consistently carried on an extensive research program — viewed flavor with relation to the mix it was to fit, and predetermined through scientific control and ceaseless testing and retesting the exact type and grade of flavor best adapted to each grade and type of candy.

The results of this research are yours to utilize. We shall be glad to cooperate with you in the solution of your flavor problem. Why not substitute the findings of exact, scientific investigation for the vagaries and fallacies of haphazard selection? Our recommendations will not obligate you in any way.

The F & J organization is pledged to a program of service in behalf of the candy industry, of which it is an important part. It seeks to make the results of its research work; the advantages of its facilities; and the benefits of its nearly half-century of accumulated experience in solving flavor problems, available to those who acknowledge that candy is only as appealing as its flavor.

FOOTE & JENKS

JACKSON, MICHIGAN

FOOTE & JENKS FLAVORS

··A Flavor for Every Use

There's a BAKER'S *Coating for every taste, color and price requirement.*

for

FLAVOR · TEXTURE · APPEARANCE · PERFORMANCE

Use BAKER'S *Coatings*

FORMULATE in your mind, for a moment, if you will, the necessary features of chocolate coating demanded by the most exacting manufacturer of high grade candy. Then compare your standards with BAKER'S Chocolate Coatings. You will understand why so many makers of candy credit Baker's with the success and increasing sales of their first quality box lines.

Only through one hundred and fifty years of buying, blending and roasting choice cocoa beans is it possible to obtain that real chocolate flavor that *sells* candy. Advanced methods of manufacture, used only in BAKER factories, give a smoothness of texture that is unsurpassed. Color is always uniform because of scientific production. Every BAKER Coating has a higher melting point which insures resistance to heat and weather conditions. Each has a fine finish lustre and gives a clean snap and a good string to the finished confection. And because of processes in their making, BAKER'S Coatings give more coverage per pound—hence, greater profits. Write for samples and quotations today.

REG. TRADE MARK

Baker's Laboratory and Technical Staff are at your service. Use them!

WALTER BAKER & CO., *Inc.*

DORCHESTER, MASS. MONTREAL, CANADA

Chicago Office, 208 WEST WASHINGTON STREET

Pacific Coast Representatives, MAILLIARD & SCHMIEDELL

Coconut Absolute

(*imitation*)

Possesses the utmost fidelity of flavor and aroma to the fragrant fresh coconut. Its worth in food products of all descriptions has already been proven. **Will neither bake nor freeze out.** COCONUT ABSOLUTE may be used alone or in conjunction with desiccated coconut to which it restores the delicious character lost to the fruit during desiccation.

1 oz. to 100 lbs. cream or 50 lbs. hard candy

Price—$4.00 per lb.

Banana Absolute

(*imitation*)

Reproduces the golden banana flavor in its true character.
1 oz. to 100 lbs. cream or 50 lbs. hard candy
Price—$4.00 per lb.

Try Them!

We are specialists in pure fruit extractions which reproduce the flavor of the fresh fruit in your creams, bon bons, etc.

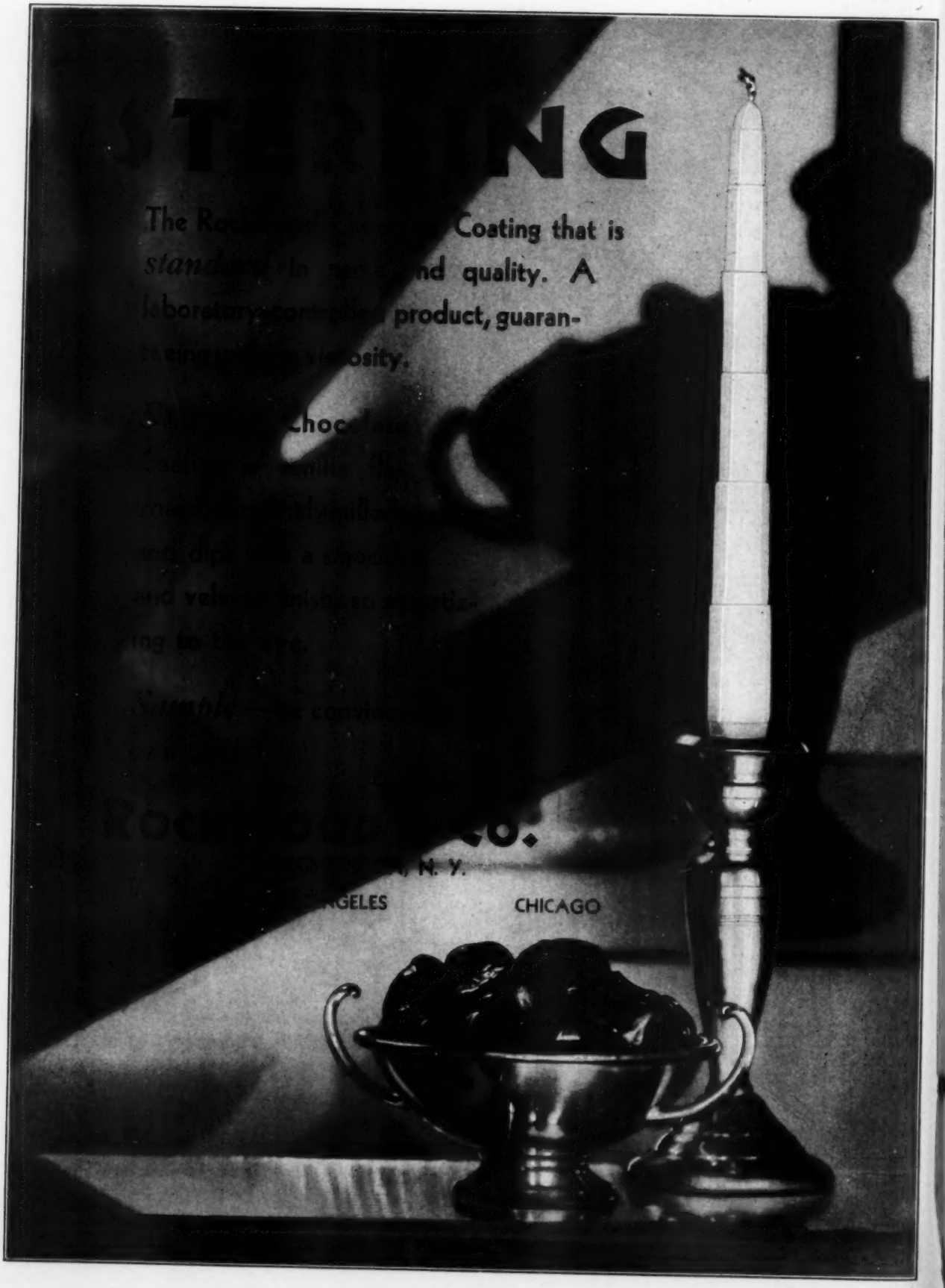
van Ameringen-Haebler, Inc.

Manufacturers and Importers of

Flavor Materials — *Aromatic Chemicals*
Essential Oils — *Perfume Specialties*

314 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
826 Clark Avenue, St. Louis
42 Wellington Street, E. Toronto

Factory, Elizabeth, N. J.


NG
Coating that is
nd quality. A
product, guaran-
osity.
Choc
CHICAGO

AN IMPORTANT ANNOUNCEMENT!

LEXIN

(Sold for use Under U. S. Patents Nos. 1,575,529 and 1,781,672. Other Patents Issued and Pending)

IT has been the privilege of American Mills Company to pioneer the commercial utilization of lecithin in the confectionery and other food industries of this country.

SO rapid has been the adoption of LEXIN and related products, so genuine the interest among leaders in food technology, and so widespread the recognition accorded the benefits to be gained through their use—quality foremost—that we are pleased to announce organization of the AMERICAN LECITHIN CORPORATION.

THIS company will devote itself exclusively to the development of lecithin products and to fostering interest in bringing these important food materials to the highest point of usefulness to the entire food industry.

OUR research laboratories and associates are constantly at work on problems involving the use of LEXIN. Efforts are directed particularly towards progress in technique.

Write us about any problem concerned with oils and fats, or about any problem indicating colloidal or emulsifying action.

Samples on request

AMERICAN LECITHIN CORPORATION

AFFILIATED WITH AMERICAN MILLS COMPANY

ATLANTA, GEORGIA

6 ADVANTAGES . . . . . IN USING GUITTARD CHOCOLATE COATING

Higher Gloss

Chocolates dipped in GUITTARD COATING show and retain a remarkable lustre. They are true quality coatings which actually look the part.

Easier Workability and Smoothness

The GUITTARD PROCESS, entirely new in chocolate manufacture, gives the much desired satin smoothness, as well as better coverage for centers.

Greater Heat Resistance

GUITTARD COATING absolutely insures the maximum hot weather protection because of its higher melting point—a reliable safeguard against graying and bloom.

A Finer Chocolate Flavor

The world's choicest cocoa beans come to San Francisco. Careful selection of these beans accounts for the superior flavor and character of GUITTARD COATING.

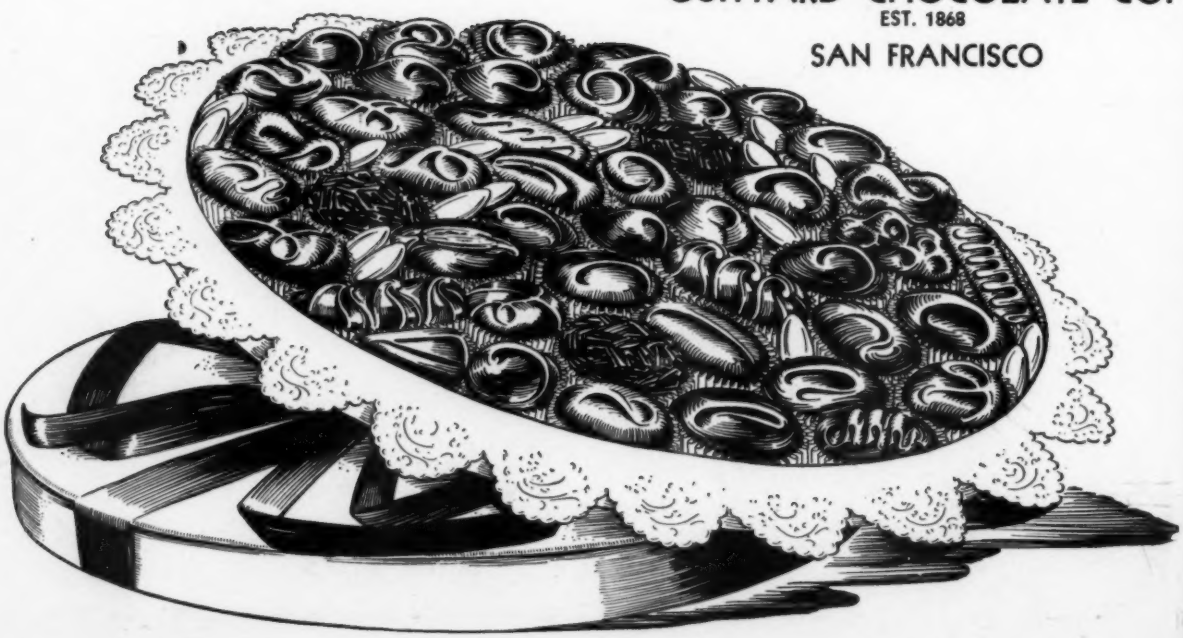
Quicker Setting and More "Snap"

Confectioners quickly appreciate the distinctive hardness and "snap" of GUITTARD COATING—a quality which is especially desirable in all chocolate coated candies.

Absolute Uniformity

The complete GUITTARD COATING line is laboratory-controlled—each batch is thoroughly tested to insure uniformity of color and viscosity at all times—one batch is the same as another.

GUITTARD CHOCOLATE CO.
EST. 1868
SAN FRANCISCO



What the new ruling on corn sugar means to you—

CORN PRODUCTS REFINING COMPANY

WHITEHALL BUILDING
17 BATTERY PLACE

NEW YORK January 10,1931.

TO THE READERS OF Manufacturing Confectioner :

Many candy manufacturers have written us to ask what the new Department of Agriculture ruling on corn sugar means to them.

Candy, like ice cream and baked goods, has enjoyed for years, the benefits of being able to use refined dextrose (corn sugar) without labelled declaration. The recent ruling of the United States Secretary of Agriculture conferring a like privilege upon the other sugar-using industries, is a recognition of the intrinsic wholesomeness as well as the economic importance of this new world staple.

In the candy industry, only chocolate products remained under the onus of label declaration. This, the signing of the Department of Agriculture ruling has removed. Chocolate made even better through the use of refined dextrose, may now take its place with the hundreds of other wholesome and delicious confections in which corn sugar has already become a most useful and valuable component.

Cerelose (refined dextrose) has been shown to produce in chocolate the required dipping consistency with less fat, to accentuate natural flavor, and to make the final product more digestible and less satiating.

Just as a definite procedure is necessary to obtain the best results with any other sugar, a special technique is required to obtain the full benefits from the use of Cerelose. To assist chocolate and confectionery manufacturers in solving their specialized problems, the Corn Products Refining Company has established a companion plant to the Cerelose Candy experiment station at Edgewater, N. J. This plant laboratory will be devoted to Cerelose research on chocolate and chocolate products.

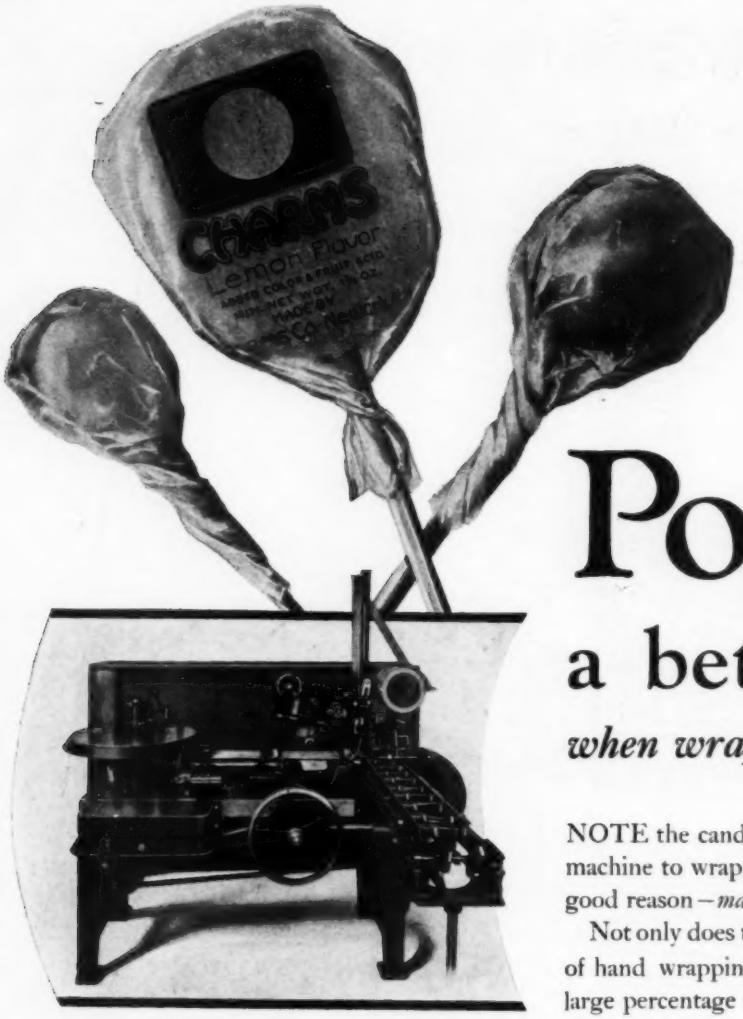
Your kind cooperation and inquiries are invited.

Very truly yours,

Vice-President.

CERELOSE

THE REFINED DEXTROSE FROM CORN



Pops yield a better profit

when wrapped by this machine

NOTE the candy manufacturers below who use this machine to wrap their pops. They do so for a very good reason—*machine-wrapped pops pay better profits.*

Not only does this machine save money on the cost of hand wrapping, but it makes a neater wrap. A large percentage of pops are bought by grown-ups for children. To the grown-up purchaser a *neatly wrapped pop* gives the impression of *better quality candy.*

The machine uses waxed paper, heat sealing it around the stick—this makes a much more secure wrap than is possible by hand. The machine also uses Cellophane, and can be equipped to register the printed label, if desired.

Pops may be rectangular, round, oval, pear-shaped, or ball shaped. The machine can be furnished with extra parts to wrap more than one size.

Write for further information.

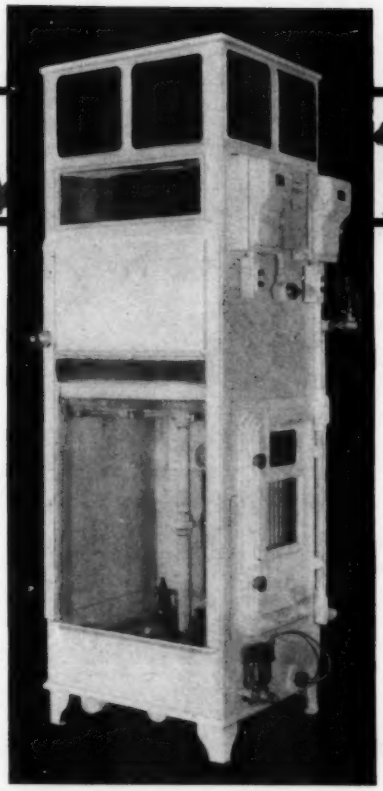
WRAPS POPS FOR

Allen Candy Co.	Clark
American Candy Co.	Halloway
Beech-Nut	Kibbe
Bradley Smith	C. N. Miller
Bunte	Schrafft
Charms	Whitman

PACKAGE MACHINERY COMPANY
Springfield, Massachusetts
New York Chicago Los Angeles
London: Baker Perkins, Ltd.

PACKAGE MACHINERY COMPANY

Over 150 Million Packages per day are wrapped on our Machines



The Carrier Unit Air Conditioner . . . portable, compact, efficient, economical.

It's Not Too Early *for* Easter Production *with* Manufactured Weather

MANUFACTURED WEATHER, the Carrier System for Air Conditioning, makes it possible for any confectionery manufacturer, regardless of size or location, to produce holiday goods and specialties months in advance of distribution to the trade.

Chocolate rabbits, eggs and other specialties, made, packed and stored in January in an atmosphere of Manufactured Weather, are placed on display for the Easter trade, with the finish as attractive and tempting as when first removed from the molds.

One or more Carrier Unit Air Conditioners installed in your plant now will give you the advantages of Manufactured Weather for the production of your Easter goods. You will find, too, that it will prove a decided asset in the all year round production of fine confections.

With Manufactured Weather full production is possible in all seasons . . . in spite of high outdoor temperatures and humidities. This means keeping your regular force busy right through the so-called "slack" season of summer. It means the complete elimination of the usual costly hustle, overtime and forced production in the fall, to provide for the holiday rush.

There is a Carrier System, Central Station or Units, available for, and within the economic reach of, *any* confectionery manufacturer. A single Unit often fulfills the air conditioning requirements in the enrobing and packing departments of a small plant. While you think of it, why not write a brief note to one of our offices for information, or, if you wish, ask for a visit from one of our engineers?

Carrier Engineering Corporation

A DIVISION OF CARRIER CORPORATION

NEWARK, NEW JERSEY

OFFICES: New York, Philadelphia, Boston, Chicago, Cleveland, Detroit, Washington, Dallas, Los Angeles

EXPORT DIVISION: 505 Fifth Avenue, New York

CARRIER ENGINEERING COMPANY, LTD.
LONDON, PARIS . BOMBAY, CALCUTTA, JOHANNESBURG

CARRIER LUFTTECHNISCHE GESELLSCHAFT
STUTTGART, BERLIN

Contributor

Foresighted Factory Managers

are looking ahead six months

This is Indicated by the Number of Proposed Installations for Operation Before Summer, of Dependable

COOLAIRCO
COOLING AND AIR CONDITIONING
Made-To-Order-Climate
SYSTEMS

Now Is The Time To Install Needed Equipment To Maintain Production Without Summer Slumps

Progressive factory executives, in every branch of the confectionery industry, are right now preparing to make 1931 a banner year for production and profits. Already scores of prominent plants are equipped to carry on through all 12 months of the year —insured against the effects of heat and humidity that will cut the year to six or seven months for their less fortunate competitors. Scientific air conditioning now provides tremendous new possibilities in the making and merchandising of candy. The more progressive plants will benefit by them.

There is every advantage to be gained in considering air conditioning requirements now. You may consult Coolairco engineers concerning the existing problem in your plant. Plans can be properly drawn up and necessary equipment installed in the most convenient way so as not to interfere to any extent with your winter production and operation. A few months later might be too late to secure all these advantages. Look ahead—as so many others are doing. Consider Coolairco conditioning for your factory now.

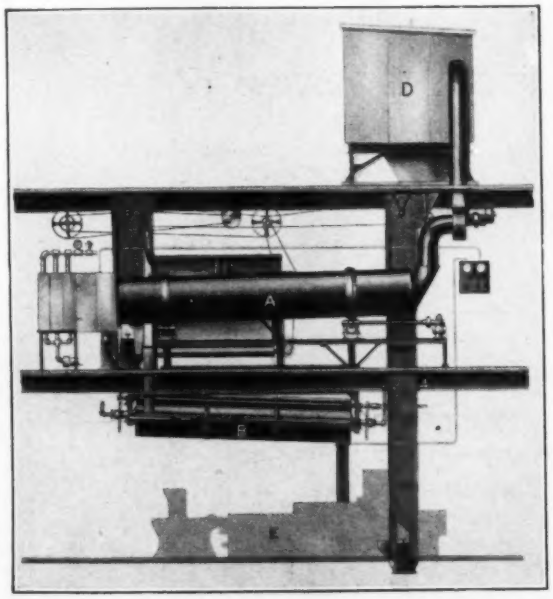
The COOLAIRCO SYSTEM is recognized as the most practical, efficient and economical for air conditioning confectionery factories. It is complete, controlled conditioning and has been specified by the leaders in all branches of the industry. Inquiries will receive prompt attention.

THE COOLING & AIR CONDITIONING CORP.

11 West 42nd Street, New York, N. Y.

Chicago, Ill. **Cleveland, Ohio** **Philadelphia, Pa.** **Los Angeles, Calif.**

ARE you looking through the *wrong* end of the TELESCOPE?



DON'T look through the wrong end of the telescope! Cutting costs is not always a thing in the dim and distant future. With the Hersey Starch Conditioner lower costs *start* with the purchase price. The Hersey Starch Conditioner actually costs less than any other method of correctly conditioning starch.

In operation a Hersey Starch Conditioner yields savings at once. It requires no extra labor—does away with half your starch boards and with the entire starch drying room. It handles full capacity of the Mogul doubling production in the same working time. It does a better job because starch is conditioned under complete automatic temperature control.

For an investment that starts reducing overhead right off, investigate the Hersey Starch Conditioner today. Let our engineers help you.

HERSEY MANUFACTURING COMPANY
Main Office and Works: Corner E and Second Sts.
South Boston, Mass.

Branch Offices: NEW YORK CITY, 290 Broadway; PORTLAND, ORE., 475 Hoyt Street; PHILADELPHIA, PA., 314 Commercial Trust Bldg.; ATLANTA, GA., 510 Haas-Howell Bldg.; DALLAS, TEX., 402 Praetorian Bldg.; CHICAGO, ILL., 10 So. La Salle Street; SAN FRANCISCO, CAL., 690 Market Street; LOS ANGELES, CAL., 450 East Third Street.

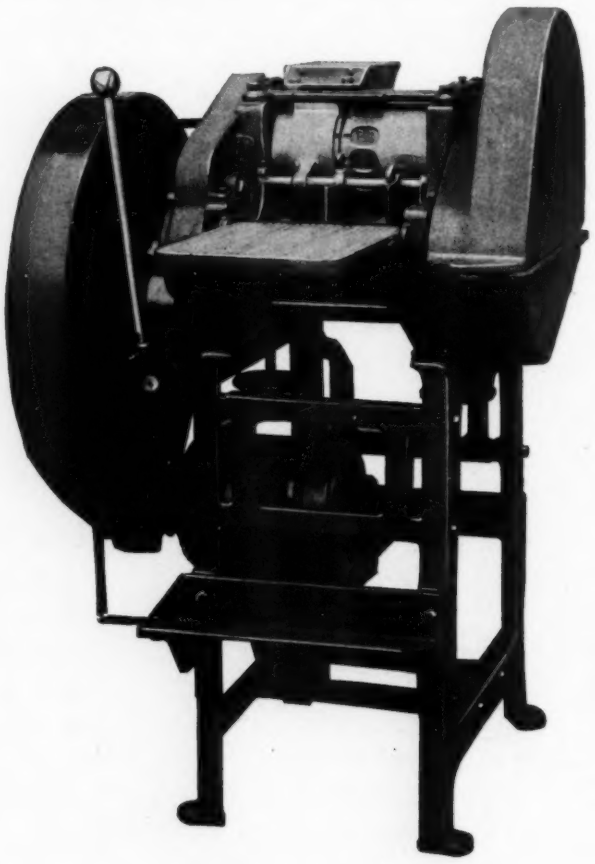
HERSEY

STARCH CONDITIONER

RACINE CONFECTIONERS MACHINERY

Racine Automatic Sucker Machine

(PATENTED)

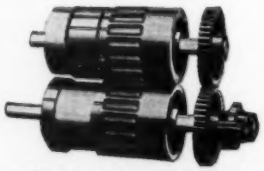


This is the machine that made the "all day sucker" the most popular form of hard candy in America.

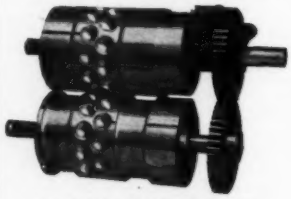
The latest model pictured above represents years of gradual development and because of the variety of its products it is practically a complete hard goods equipment in itself.

It is supplied with pulley for belt drive or with motor direct connected as illustrated. The length of conveyor is optional but 24 feet with air tunnel and motor driven blower is the accepted standard.

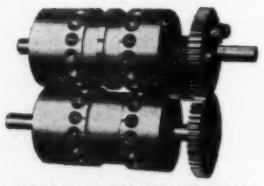
Note the variety of products made by these interchangeable rolls.



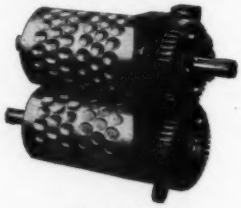
STANDARD SUCKER ROLLS
Candy on one end of the stick



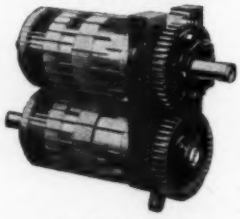
DUPLEX SUCKER ROLLS
Two suckers at a time



DUMBELL SUCKER ROLLS
Candy on both ends of stick



DROP ROLLS
Engraved as desired



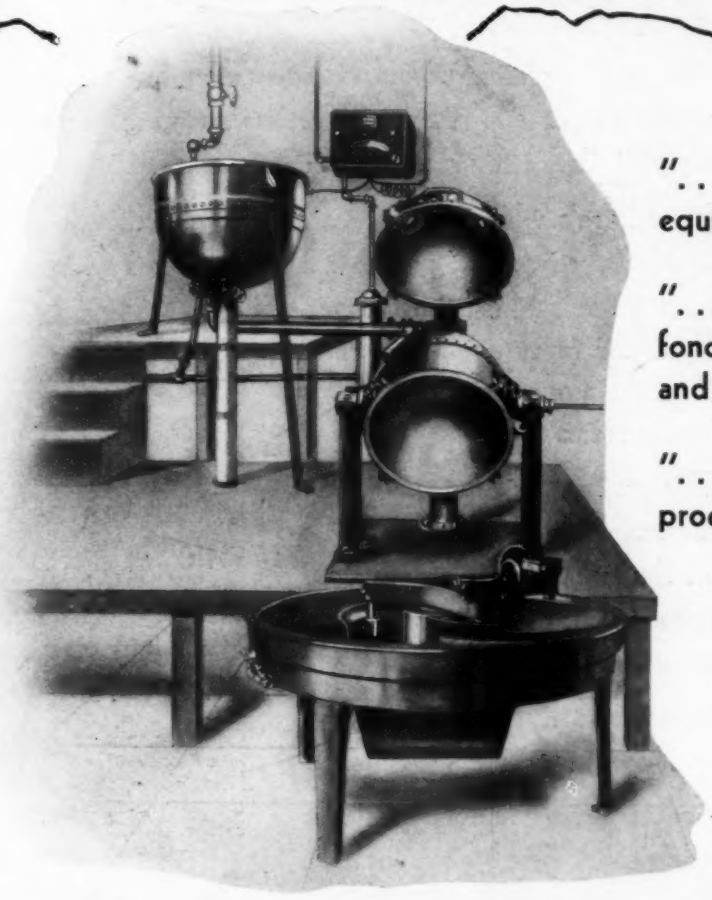
CUTTING ROLLS
Waffles and Satin Finish Goods

RACINE CONFECTIONERS' MACHINERY COMPANY
RACINE, WISCONSIN, U. S. A.

It is our pleasure to advise you that the Simplex Vacuum Cooker which we purchased from you last summer has proven a very valuable piece of equipment.

Not only does it produce a smoother and whiter fondant than our open fire method but it does so with less labor and in less time.

Simply by substituting the Simplex Cooker for our open kettle, we can more than double our production and accomplish this without additional beaters.



"..... valuable piece of equipment."

"... a smoother and whiter fondant ... with less labor and in less time."

"... more than double our production."

These comments of a satisfied user are more convincing than anything we might say, especially since they were unsolicited. The original letter, of which this is a part, may be seen by those interested.

The Simplex Vacuum Cooker shown above makes possible the COOKING and COOLING of your cream fondant in one operation. Absolute UNIFORMITY of each batch is insured by the AUTOMATIC CONTROL. Batches are FINISHED so COOL that creaming can be started as soon as placed in beater. The high vacuum attained and RAPIDITY in COOLING influences the rate of crystallization and size of sucrose crystals resulting in a LIVELIER, FIRMER, MORE PLASTIC and SMOOTHER CREAM FONDANT. Many other advantages and savings. Write us for particulars.

Also adaptable for cooking perfectly, HARD CANDIES, AFTER-DINNER MINTS, TAFFEYS, KISSES, FUDGES, Etc.

VACUUM CANDY MACHINERY CO.

15 Park Row, New York City

Factory at Harrison, N. J.

THIS IS THE WAY TO GIVE CHILDREN CANDY

Candy is a splendid energy food for children. And how they love it! Properly given, it is easily digested, and rich in quick energy so needed by them.

Give children candy after meals —as dessert. In this way they will eat as much as they should and not too much. Too, candy after meals will keep normal children from munching between meals.

Our candies are always fresh and pure.

Sweeten the day with Candy

Here's a deal for the dealer that's a deal *for you, too!*

Big among the activities of N. C. A. is the vigorous promotion of candy advertising by retailers.

The result—millions of lines of local advertising in newspapers from coast to coast—shows that dealers are ready and willing to use good advertising material, if it is made available to them.

Now here's where you come in: Supply the dealer with mats of attractive, well prepared advertisements which he can use to increase his candy sales. The dealer in turn will be glad to feature your products in his advertisement.

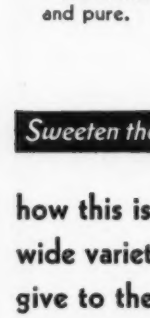
The mats you see here show how this is done. N. C. A. headquarters will furnish you with a wide variety of mats prepared like the one to the left. These you give to the dealer who has the newspaper insert his name and the copy featuring your products, as shown at the right.

You render the dealer a valuable service. He features *your* products in his advertising.

Write for proof sheets of the entire series we have available for your use. They cover a wide range of subjects, include various appeals. Use them. They will get results for you.

NATIONAL CONFECTIONERS' ASSOCIATION

111 *West Washington Street, Chicago*



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Give children candy after meals —as dessert. In this way they will eat as much as they should and not too much. Too, candy after meals will keep normal children from munching between meals.

Our candies are always fresh and pure.

Blank's Delicious Candies in Attractive Boxes, 70c to $2.50

Blank's Special Christmas Mixture, 50c lb.

Blank's Assorted Sweets, 69c lb.

John Doe's Confectionery
732 Main Street

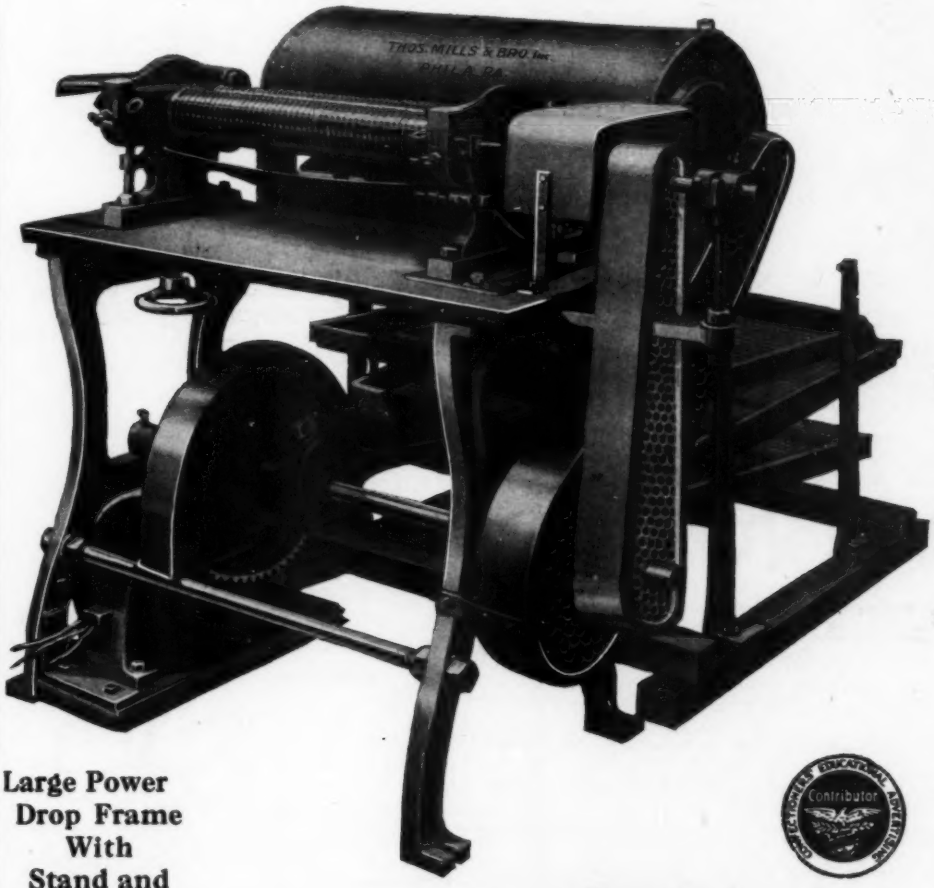
Sweeten the day with Candy

Striking window strips in color for all the important holidays cost only 1c apiece from N. C. A. headquarters. Order a supply for all your dealers now. The biggest holidays of the year will soon be here!

Thomas Mills & Bro., Inc.

1301 to 1315 North Eighth St. Philadelphia, Pa.

ESTABLISHED 1864



Patent Automatic Seamless Hard Candy Machine

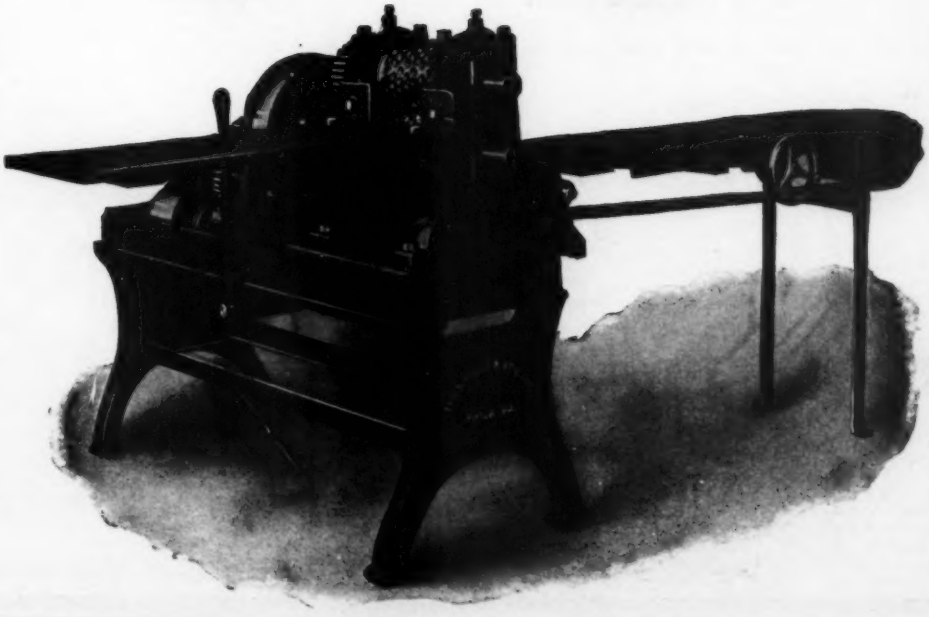
Improve Your Production By Installing This Labor Saving Machine

Send for Special Circular

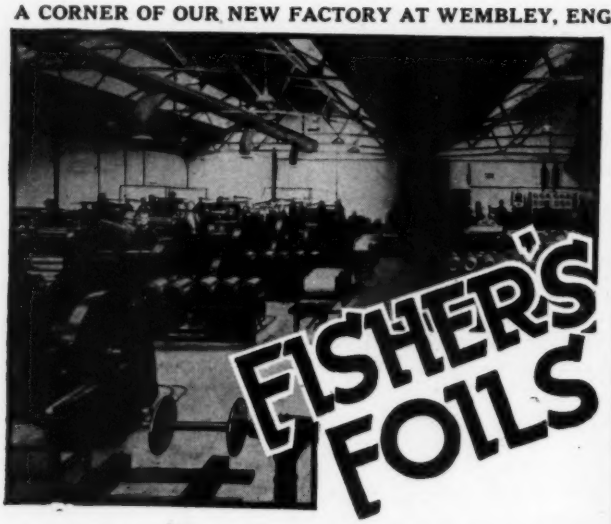
Large Power Drop Frame With Stand and Endless Belt Conveyor Attachments

Used In All The Largest Factories For High Grade Hard Candies

Our Catalog of Confectioners Equipment Sent on Request



A CORNER OF OUR NEW FACTORY AT WEMBLEY, ENG.



Modern Factory Methods make these fine Foils of *Quality*

Fisher's famous Aluminium foils—Silver White, Plain, Coloured and Embossed—are made by new up-to-the-minute methods in Fisher's fine modern factory at Wembley, England.

The Fisher range also includes PLAIN WHITE AND EMBOSSED ALUMINIUM AND TIN FOILS, all thicknesses—PLAIN COLOURED AND EMBOSSED FOILS—DECORATED FOILS in endless varieties—BACKED FOILS for the Tobacco Trade WAXED PAPER BACKED FOILS—FOILS WITH CUSTOMER'S NAME OR TRADE MARK our speciality. CAPSULES PLAIN AND COLOURED AND EMBOSSED, CONES, ETC.

Any design made to order.

See that your Foils are Fisher's! Rely on finer quality, better service at no more cost than you're paying now.

May we send Samples and quote for your special needs?

THIS CUSTOMER SAYS:—

"We have today received the Foil ordered and would like to reiterate our appreciation of the way you have executed the order, especially the little time taken for delivery."

Fisher's score on speed and quality tool

For every packing purpose

FISHER'S FOILS, LTD.
WEMBLEY, ENGLAND
Telegrams: Liofnit, Wembley

SEVEN Special features of FISHER'S PACKING MACHINES

1. Saves cost of bag making
2. Labels, strings, advertising strips applied
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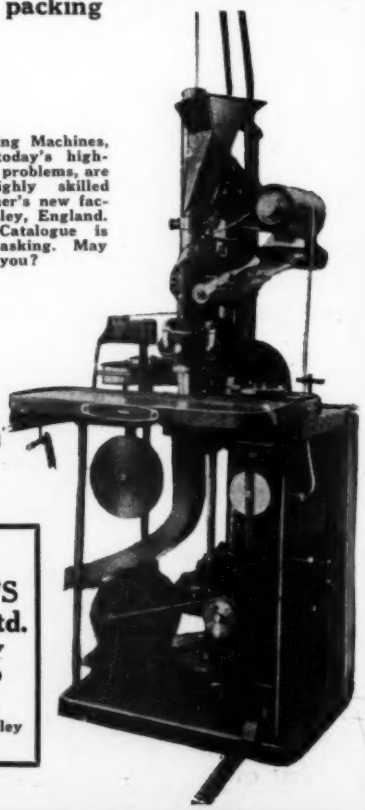
Fisher's Packing Machines, planned for today's high-speed packing problems, are made by highly skilled labour at Fisher's new factory at Wembley, England. The Fisher Catalogue is yours for the asking. May we mail it to you?



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FISHER'S FOILS Ltd.
WEMBLEY ENGLAND
Telegrams: Liofnit, Wembley

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MACHINERY AND EQUIPMENT OF

D. AUERBACH & SONS - New York City

We purchased this machinery at a very reasonable figure, and are willing to give you the advantage of our good buys by quoting cheap prices for quick sales. Every machine will be shipped from our New York plant, rebuilt in our shops and covered by our regular guarantee to be mechanically perfect and against defective parts for the period of one year.

All of this equipment is much in demand, and we suggest prompt action.

WE CAN MAKE IMMEDIATE DELIVERIES AT TIMELY BARGAIN PRICES

Automatic Wood Mogul, National Equipment, New Style, Fully Automatic, type A D

Wood Moguls, type A
Cut Roll Machine
Friend Dreadnaught Machine
Full selection Pump Bars
Depositors, Springfield
Starch Bucks, Springfield
Starch Boards and Starch
350 gallon—Single Action Gum Kettles
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Syrup Coolers and Cream Beaters, 600 lb., 1,000 lb., 2,000 lb. capacity
Cream Breakers, 50 gallon
Cream Beaters, Ball, 5 ft., motor drive
Marshmallow Beaters
Jap Mixers, Burkhard
Caramel Kettles, Burkhard
Nougat Kettles, double action, tilting
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Mills Large Power Drop Machines, with size 6" x 8" rollers
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Enrobers, with Kihlgren strokers, Bottomers, Automatic Feeders, Motor drives, Cooling Tunnels, National, Bentz

Chocolate Tempering Kettles, 300 to 2,000 lb. capacity
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Special all-brass Mixers, 800 lb. capacity
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500 gallon High Pressure Steam Jacketed Vacuum Pan with two 600 gallon Steam Jacketed Kettles and Pump
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Continuous Cutters, Brach
Revolving Pans, 38" and 42", with and without coils
Werner Ball Machines, fully automatic, also semi-automatic
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Chocolate Machinery

25,000 lb. capacity Werner and Pfleiderer, Double Arm, Storage and Mixing Tanks, Motor Driven

W. & P. Mixing and Kneading Machines, 1,000 lb. capacity, jacketed, tilting, open type. Also vacuum type for milk drying
Lehman 4 pot Conches, stone rolls and beds
Lehman Triple Mills, 40" stones, Style 40 A; also 38" mills
Springfield, 5 roll Refiner 40" rolls
Lehman 3 Roll Water Cooled Refiners, 16 x 40; vertical
Kent 3 Roll Horizontal Refiners, 16 x 40
Chocolate Mixing Tanks, 1,000—5,000 lb. capacity
Lehman, style 114, Cocoa Presses
Carver Cocoa Presses with Metal Plates, complete with accumulator system
Lehman Complete Cocoa Powder Outfit
Lehman Melangeur
Lehman, 9 compartment, Cracker and Fanner
Springfield, 7 compartment, Cracker and Fanner
Lehman Germ Separator
Burns Cocoa Bean Cleaner
Lehman Cocoa Bean Separator
Burns and Lehman Roasters

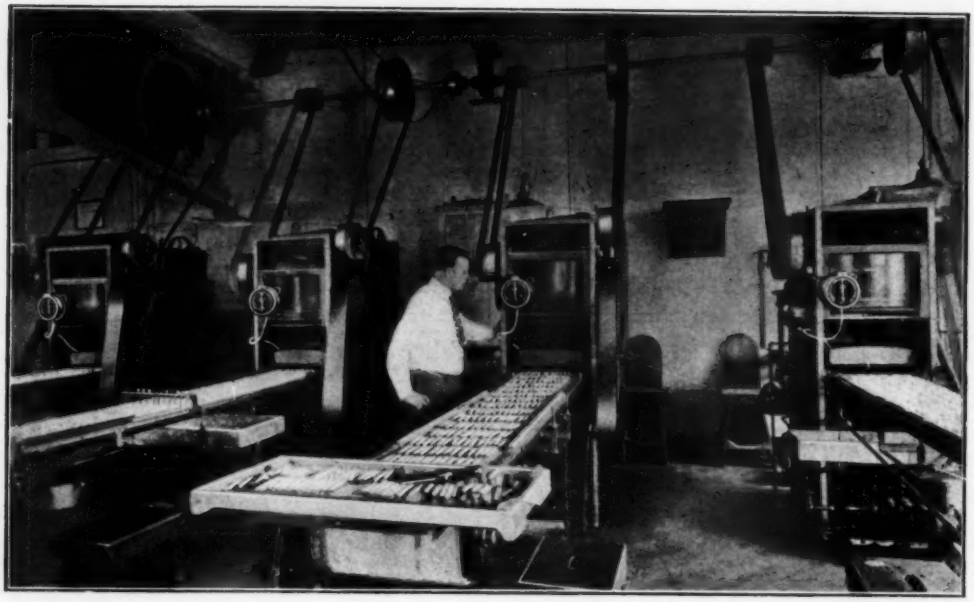
THIS IS BARGAIN TIME---BUY NOW!

Select the machines which you are interested in and wire or write for prices and particulars to

UNION CONFECTIONERY MACHINERY CO.
INCORPORATED

318-322 Lafayette Street, New York City

Use *Tycos* Index Thermometers on Your Chocolate Enrobers for Better Candies



This photograph shows Tycos Index Thermometers on Chocolate Enrobers with bulbs in the Chocolate Pan. Tycos Complete System of Temperature Control is also available for this application.

The Tycos Index Thermometer. It has a 7" dial and for the Enrober application a range of 0° to 160° F.

TYCOS Index Thermometers on Chocolate Enrobers with their bulbs in the chocolate pans show the actual temperature of the chocolate just before it is applied to the candy.

They enable operators to watch and control temperature so that the chocolate is always just right . . . thick enough to cover nicely and not run off, thin enough to flow evenly and give the desired coating.

Tycos Index Thermometers are as easy to read as steam gauges and can be seen from a considerable distance. They are ideal for Chocolate Mixers and Cooking Kettles as well as Enrobers. Call or write the nearest *Tycos* office for full information and prices.

Taylor Instrument Companies

ROCHESTER, N. Y., U. S. A.

In Canada, **Taylor Instrument Companies of Canada, Ltd., *Tycos* Building, Toronto**

New York Chicago Boston Philadelphia Pittsburgh Cleveland Los Angeles Indianapolis San Francisco St. Louis Cincinnati Tulsa Detroit Atlanta Minneapolis

Manufacturing Distributors in Great Britain: **Short & Mason Ltd., London**

Out where the SALES come THICK and FAST

Stepping up profits on Edwards' Marshmallows by moving them into new, small-unit packages wrapped in Cellophane

TRANSPARENT Cellophane takes marshmallows out of old-fashioned packages and show-case bins. It places them out on the counters where customers *see* them and *buy* them.

Cellophane prevents deterioration of the product, keeps it clean and fresh indefinitely and eliminates losses due to shrinkage and sampling. It is accepted as a mark of high-quality product delivered in perfect condition to the consumer.

The successful use of this 100% transparent, 100% protective material becomes more and more extensive every day. Our Package Development Department has worked with many companies, suggesting ways to use Cellophane and helping to develop ideas advanced by the manufacturer. Perhaps it can aid you in pepping up the sale of one or more of your items. For further information, address Du Pont Cellophane Company, 2 Park Avenue, New York City.

DU PONT CELLOPHANE
REG. U.S. PAT. OFF.

Cellophane

Cellophane is the registered trademark of the Du Pont Cellophane Company, Inc., to designate its transparent cellulose sheeting.

Sealed in their double-wall Cellophane wrap, Edwards' Marshmallows look better, keep better, sell better. These packages have superb display value . . . an eye appeal that makes instant sales. Repeats follow.

Editorial

Take Stock of Fundamentals

THE close of one year and the beginning of another is not only a good time for inventory of physical stock and equipment, but it is also an opportune time for pausing a moment to reconsider the *fundamentals* upon which our industry is based and upon which it must depend for continuance and permanent existence. We live in a world of constant change and the standard of excellence of today may be *passé* tomorrow.

In this connection a recent article by E. G. Montgomery, Chief of the Foodstuffs Division, U. S. Dept. of Commerce, on "Changing Habits in Food Consumption" (see "Monthly Digest of Technical Literature" in this issue) certainly has a tendency to stimulate thought and conjecture as to the future. Whereas per capita consumption of "cereals" in the U. S. is now only about two-thirds of the consumption of 30 years ago, "*sugar has shown the most remarkable increase of all the standard food products*", increasing from 61 lbs. per capita per annum about the year 1900 to 105 lbs. for the recent 5-year average. This tremendous increase is ascribed in large measure to the rapid increase of manufactured foods in which sugar is used.

While sugar is a food, and an important one, it must never be forgotten that man consumes sugar and sugar products primarily in response to an innate craving for "sweets". Sweetness is one of the elementary physiological sensations and the satisfaction of this craving may almost be classed as a biological necessity, at least for civilized man. Consumption of starchy foods would amply satisfy the nutritional demands for sugar, but would not gratify the craving for sweetness. The industries producing sugar and sugar products are essentially *purveyors of sweetness*. They are therefore *basic industries*, perhaps more so than the steel and construction industries.

But (and this "*but*" is important), candy is not the only sugar product which is capable of gratifying man's craving for sweetness. The fancy retail baker and the baked package goods manufacturer have learned how to add the zest of sweetness to their cereal products and have not overlooked the decorative effect of colored sugar icings. The ice cream manufacturer, in summer especially, can gratify simultaneously the craving for coolness and sweetness.

Man wants foods which satisfy the physiological desire for sweetness, but in these foods he wants *variety* and *attractiveness to the eye*. Otherwise, he might just as well satiate this desire by eating granulated sugar. In fact, primitive man was well content to chew wild sugar cane. But more civilized or, perhaps we had better say, more sophisticated man desires an esthetic setting for his sweets. The contrast between the native Indian candies of Latin America and the artistic confectionery creations of Paris is an approximate measure of this difference.

And now the constructive conclusion to be derived from this New Year stock-tak-

ing is this: The consumption of sugar in one form or another is increasing and the industries which are manufacturing sugar and sugar products are necessary and basic ones, but mankind is not dependent on any one kind of sugar products and the industry which can purvey sweetness in the *most diversified and attractive forms* is the one which will reap the greatest profit from this increase in sugar consumption. In other words, the candy industry must compete with certain other industries for this increased business. This is a theme which has been discussed before, but its importance is so great that it will bear repetition.

Corn Sugar Comes Into Its Own

ON another page of this issue we print a portion of Secretary of Agriculture Arthur M. Hyde's ruling on use of corn sugar in foods which has just recently been released. This apparently marks the end of a long controversy which has been carried both to Congress and to those officials responsible for enforcement of the Federal Food and Drugs Act.

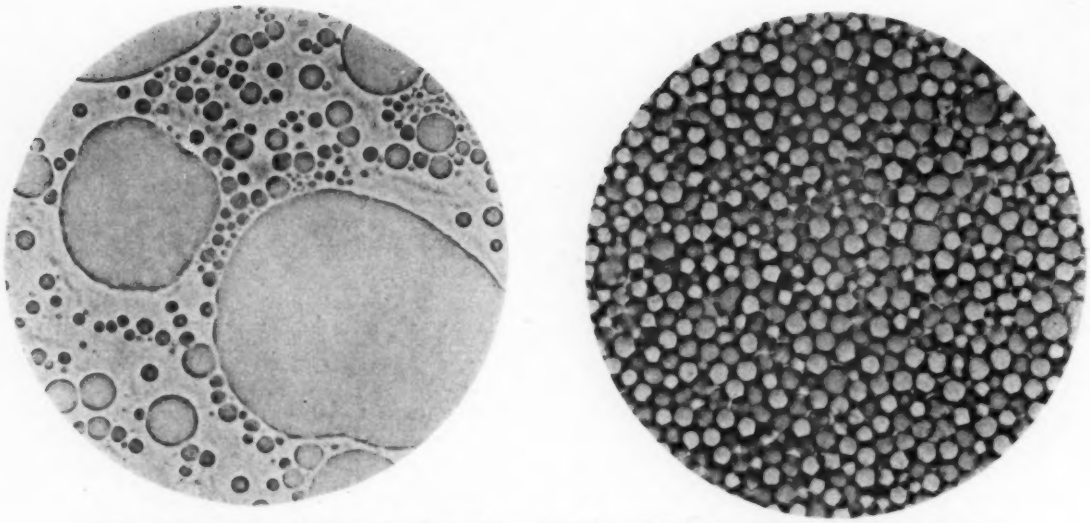
This new interpretation of the Act does not affect the present status of use of corn sugar in candy with the exception of chocolate coatings. The ruling that *"The use of pure refined corn sugar as an ingredient in the packing, preparation or processing of any article of food in which sugar is a recognized element need not be declared upon the label of any such product"* merely extends to *all foods* the privilege of using corn sugar under the conditions heretofore enjoyed by candy and certain other food products. As Secretary Hyde states in his announcement of the ruling, "for many years corn sugar has been used in confectionery, candy, ice cream, bakery products and prepared meats without its presence being declared on the label."

Corn sugar's attainment of an accepted status on a par with that of sucrose from the viewpoint of the Federal food law is just one more illustration of the progress in invention and the resulting change in food habits. Corn oil, another derivative of the premier American cereal, has likewise been greatly improved in quality as a result of more efficient refining methods and the ruling requiring declaration of its presence on the label of salad dressings was rescinded several years ago. Interpretation of law must necessarily give due consideration to scientific progress and changing industrial and economic conditions.

Comes the Dawn

DEPRESSION, recovery, prosperity, recession—and once again depression. Thus we find ourselves part of an endless and unalterable cycle—a series of stages, each merging into the next as surely as dawn sweeps away darkness, and is transformed into day. You've seen nights when the impenetrable blackness could be "cut with a knife"; you have seen days that were brilliant and days that were drab. With like intensities come these periods of depression and prosperity. Some nights are blacker than others; some periods of depression more pronounced. But regardless of degree their end is inevitable.

Dawn is approaching; even now its telltale rays can be seen across the horizon. It is time to be up and doing. Much can be accomplished in these early hours of morning. Day is just so long; before we realize it, it will have passed and night will descend upon us once more with appalling suddenness. From now on make every minute count, for those who do will be better fortified against the rigors of the night to come.



Microphotographs of a water-in-oil emulsion containing 25% water; No. 1, before treatment; No. 2, following treatment in a colloid mill. The ideal chocolate should show a mixture in which the particles are as even in size and as well balanced as the materials in No. 2.

Chocolate *and the* Colloid Mill

A sequel to "Chocolate, the Colloid" which appeared in our Chocolate Edition of last February

By EUGENE B. EDWARDS

CHOCOLATE comes from the grinding process in the form of a powder, paste, semi-liquid or liquid, depending upon the machine used. It consists of more or less fine particles mixed with cocoa butter. These particles may be, on the average, extremely fine, but even the finest ground chocolate is made up of particles of many different sizes. The solids of chocolate at this stage consist not of separate particles, but of groups or aggregates, the adsorptive power of the larger pieces pulling the smaller to them. It is one of the functions of the finishing process to separate these groups and effect an even dispersion of the individual particles through the finished chocolate. Obviously, the longer the working time, the greater the dispersion.

Types of finishing machines are many and varied, the conch being perhaps the most successful. In this type a semi-paste is used. This consistency of the material makes the breaking up of the aggregates easier. Methods which attempt to do it when the mixture is liquid, as a general rule, merely chase the groups around fruitlessly. The caramelizing which takes place in the paste type of machine is brought about by the slow caramelization of the sugar in the presence of heat, the machine and the consistency of the paste being only partly responsible since this result has been obtained even by those machines which treat the product while in a liquid state.

Exactly what happens to the chocolate in this final working beyond the dispersion of its component particles is a matter of conjecture. That there is a gradual re-alignment of its constituents in both working and ageing is conceded, the results being beyond question. The best theory so far advanced is that where this processing takes the form of a sustained movement in one direction the various internal forces are to a large extent balanced, and that under favorable conditions this action will continue almost indefinitely.

The handling and eating qaulities of well-finished and processed chocolate need not be discussed here except to point out that chocolate possesses these qualities only as a result of the thorough dispersion of its various solid particles in the cocoa butter. Good viscosity, good dipping and keeping qualities, as well as good eating quality, are dependent upon this condition, which is, in turn, dependent upon fine grinding and proper finishing, assuming, of course, that the original raw materials were good to begin with.

Cocoa Butter Contains Natural Colloids

The colloid makes its final appearance in the manufacture of chocolate products at the end, when the product is given the final form in which it is to be consumed. Its performance at this stage is perhaps as important as any since most of the previous processes of manufacture have merely been in preparation for this later one. Cocoa butter was described earlier in this article

as a colloid. From a scientific standpoint, this is not strictly true. The facts of the case are that cocoa butter consists of a series of fats which, when the butter is hard, are present in crystalline form. When thoroughly liquid cocoa butter is hardened these fats solidify one at a time, forming tiny crystals in the remainder, which is still liquid. All cocoa butter contains in suspension quite a large quantity of colloids of the proteid type. These substances become the protective colloids, which not only hold the added solids of chocolate in suspension in the cocoa butter, but also the solid crystals of the butter itself formed in cooling. They continue to function as colloids up to the point where the solid particles outnumber the liquid particles of the mixture and the whole mass becomes semi-solid—a phenomenon which accounts for the familiar manner in which chocolate cools, and without which peculiarity such manipulations as dipping would be impossible.

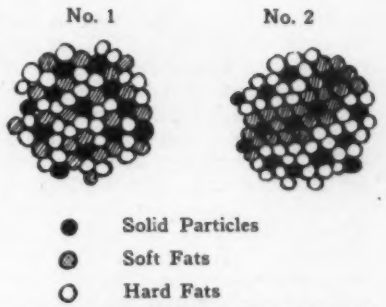
The cocoa butter in a finished chocolate is, as we have seen, the dispersing medium which holds an extremely finely divided mass of solid particles in a more or less stable state of suspension. This naturally means that the cocoa butter itself must be pretty well split up into small bodies and that each of these small bodies contains some of each of the component fats of the butter. If the final finishing and working is continued in remelting and handling prior to moulding and dipping we have in the hardened chocolate very small groups of cocoa butter crystals separated by the solids.

Why Good Chocolate Resists Graying

This is what happens when we temper chocolate, and it is vital to obtaining a good finish. If the butter in the mixture is of good grade, with a proper balance of fats, and if it is well supplied with the right type of protective colloids, the chocolate will possess superior keeping qualities and will withstand a fair degree of heat without graying. On the other hand, any excess of low melting fats in its composition, a shortage of natural protective colloids, or poor grinding will allow the fats, upon heating, to run together and away from the solids with the familiar results.

What happens in a good chocolate is that when the butter melts each crystal of cocoa butter, in its protective covering, acts as an individual, gradually reproducing the process described earlier in this article, each hard fat floating in its soft companions until there are none left and breaking-down takes place. If the chocolate is rehardened before the final breakdown it will tend to hold its original color.

The general tendency of modern coatings to go gray is to a great extent due to the use of poor cocoa butter and has led to the introduction of a large number of so-called "hardeners," many of them worse than useless in that they frequently spoil any good qualities the chocolate might normally possess. There are some, however, and one in particular, which are good protective colloids. Like all other colloids, these added protective colloids must be thoroughly dispersed through the mass in order to give satisfactory results, most cases of failure having occurred when they have been carelessly mixed with the chocolate. Temperature and other conditions prevailing at the time of mixing are also factors in their successful use; in fact, it is here that some machine of the type of the colloid mill will prove of greatest value. The development of a suitable protective collaid will undoubtedly remove many of the troubles which now beset



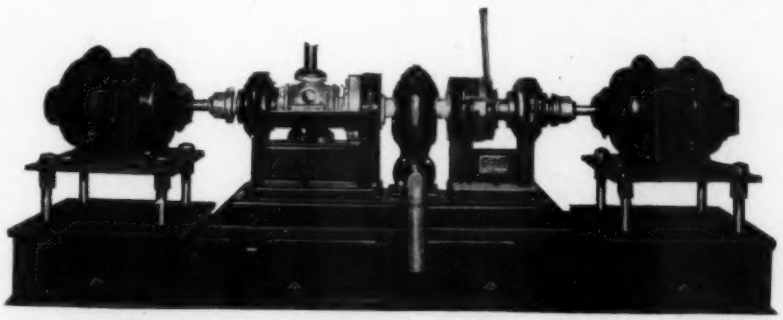
In No. 1, the globules of fat and particles of solids are so well mixed that the softer fats, upon melting, tend to stay apart. Such a coating resists graying. No. 2 is a poorly mixed chocolate. Upon melting, the various fats tend to run together and off the candy, graying will result.

chocolate after it leaves the manufacturer's hands, but its manipulation in the batch will need more exact knowledge of what goes on in the batch, and more than ordinary care.

What the Colloid Mill Can Do

In speaking of colloid mills, or of any other means of imparting colloidal disintegration and dispersion to the solids in chocolate, it must be borne in mind that all of the grinding and finishing machines now being used in the industry are doing just that. Colloid mills, if they can be made to function on chocolate, can hardly do more than speed up the present process, or cheapen it. They will perhaps slightly accentuate the desirable properties now obtained, but they will not bring out characteristics not already possessed by good chocolate.

One of the main trends in today's search for speedier, cheaper methods has been in the direction of the development of an all-purpose machine, one which will eliminate the liquor mill, the sugar mill, the grinder and the kettle. Of the many machines made with this end



An advanced type of colloid mill and one which is being further developed for use in the chocolate industry.

in view, only one has been in any measure successful. This machine consists of a tank with a corrugated lining over which metal fingers are rubbed. The ingredients are introduced into the machine in liquid form, the centrifugal action created by the revolving arms tending to throw the large particles to the drum, where they are reduced by the fingers. This machine not only overcomes the difficult task of grinding the solids in a thin mixture, but by its continuous motion in one direction gives the dispersion and viscosity of the old processes more quickly and more economically.

The colloid mill as it is at present known has been in existence only a few years. There are many variations, each of which is claimed to do a better job than its competitor, but none of which has so far proved successful with sweetened chocolate. Most of the mills consist of two circular faces as in other mills; one makes use of the cone and sleeve method of the old coffee mills. These surfaces are revolved at a very high rate of speed, approximately two miles per minute at the rim, but do not touch, the gap varying from .001 inch to .050 inch. The material, in a liquid form, is fed to the faces either from the center or at the rim, the centrifugal suction forcing it through the gap.

Is It a Grinding Process?

There is much argument among those who know the machines as to whether the mills really do grind. Many claim that the swiftly agitated particles grind each other. Others claim that the grinding action consists of nothing more than the dispersion of aggregations of particles which the older types of grinder built up. Whatever the actual action, the mills do refine many products to a better degree than any other known method.

When the material to be refined is forced between the surfaces of the mill at high speed these surfaces tend to attract the extremely thin film towards them and retain it, the action being much the same as that which makes possible the lubrication of moving pieces of machinery. It is the resulting tearing which occurs when the rotating force breaks this attracting force which does the disintegrating. Great heat is created during this action, the heat increasing as the viscosity of the product increases. Some materials are not affected by this heat, but so far chocolate has curled up and died under it. The machines do function excellently in the manufacture of chocolate syrups and drinks, particularly when milk is present in the mixture. The resulting product goes into solution evenly and holds up almost indefinitely. Coarsely ground chocolate liquor has been successfully finished on such mills, but the results were not properly followed up by the manufacturers of the machines since the aim of the confectionery industry has been, and is, the grinding of sweet chocolate; they are evidently unaware that a very finely ground liquor, finer than had been attained by the old methods, would be a boon to cocoa butter pressers.

Activity in the Colloid Mill Quarter

The chocolate industry, for some reason or other, is generally the last to take advantage of new discoveries in the art of manufacture. This certainly holds good in the case of the colloid mill. The forerunners of the present mills were made many years ago, and although many chocolate makers have tried them at one time or another, they have evidently failed to recognize the principles underlying their operation and the advantages of adapting them to their own requirements. And although the larger machinery makers, those who have supplied the needs of the trade for generations, must have known of such machines, they have been content to stand by their old gods and continue to make the old reliables a little bit bigger or added a few more rolls and speeded them up a bit.

The makers of colloid mills have suddenly awakened to the fact that they will have to develop a special type of machine for the chocolate trade and are already busy on it. Some of them report what are apparently wonderful results, and if they do only a small part of what is claimed for them, they will revolutionize the industry. A small machine (and the present colloid mills seem ridiculously small for the work they are doing) will do the work which is at present being done by a whole factoryful of the older types. Then, too, they should be comparatively cheap, as, in addition to being small, they are very simple in design. Even if they are only successful in supplanting the mixing kettle and the conch or the liquor mill, they will be an advance in the right direction. The houses who say that their new machines will do the whole job are apparently reliable and not given to day dreams, so it is very possible that they will be along soon.

U. S. Import Milk Act Model for Canadians

Dr. George Hilton, veterinary director general, Dominion of Canada, thinks that the Canadian dairy industry would be benefited by a law similar to the Federal import milk act administered by the Food and Drug Administration, United States Department of Agriculture.

"I have no hesitation in stating," he says in his report on the Health of Animals Branch for the last fiscal year, "that the general application of measures similar to those now enforced under the provisions of the American import milk act would ultimately prove of the greatest benefit to our producers and to the dairy industry at large."

Canada is the largest exporter of milk and cream to the United States. The fiscal year ended June 30, 1930, marked the second year of enforcement of the Federal import milk act, and has, says W. G. Campbell, director of regulatory work, United States Department of Agriculture, effected a great improvement in the quality of milk and cream brought into the United States from Canada. The work of enforcing the act is centered at Rouses Point, N. Y., in the heart of the section through which comes most of the milk from our Canadian neighbor.

Under the provisions of the act the Secretary of Agriculture issues to applicants permits for the importation into the United States of milk and cream, after it has been shown that the cows from which the milk has been taken are healthy and have been subjected to a physical examination, including the tuberculin test, within a year of the time when the milk being offered for entry comes from the cow. The act also specifies that the farm from which the milk comes and the plant in which it has been handled must score at least 50 on the score card drawn up by the Bureau of Dairy Industry, United States Department of Agriculture. Veterinarians and inspectors travel constantly through the milk-producing areas of Canada and check up on conditions on the premises of those who apply for permits. The Canadian Government assists in such inspections. The bacteriologists and inspectors attached to the Rouses Point station also test the milk and cream as it comes over the border to make sure that it meets the standards for bacterial count set by the act and that its temperature has been properly controlled.

—Dept. of Agriculture Report.

If You Aim *to* Produce *the* Best Chocolate...

No. 15—"Chats on Chocolate"

By ROBERT WHYMPER

SOONER or later in the course of this series of articles, methods of chocolate manufacture other than the orthodox had to be discussed. The present opportunity is a good one, not only because it is the last but because, whatever method is ultimately followed, c a c a o beans have to be dried and roasted, and we have not, so far, gone much beyond this process which we have admitted is, in our opinion, so emphatically the most important part of chocolate manufacture when aroma is under consideration—after, of course, the quality of the cacao to be used has been decided—that the remaining processes are to all intents and purposes negligible.

To the casual observer the ordinary heavy and elaborate chocolate plant used must seem out of all proportion to the materials handled and the quantity of chocolate produced—a steam-hammer, as it were, to crack a nut. Yet from the place I am now writing—France—I have satisfied myself again for the hundredth time that chocolate at its best has, so far, been made only by the older methods involving much time, personal attention and apparently ridiculously heavy machinery.

The very early processes of chocolate manufacture were certainly most primitive, being the means of preparation of a highly popular beverage undertaken by every household capable of converting cash (for cacao beans were, with quills of gold dust, standard currency in Central America before the 16th century) into the true "Food of the Gods." Even, indeed, in my earliest days of cacao experience I well remember the early morning ritual on an outlying plantation where a cupful of carefully selected roasted cacao beans was ground by hand on an antedeluvian stone pestle and mortar for the household's breakfast cup. And though we, in our Victorian nicety, did not mix in honey and hot peppers and drink the foaming beverage from gold cups, as in the luxurious palace of sturdy Montezuma, I do not remember tasting anything as good since that time when I, too, was god-like enough to insist upon freshly roasted and ground cacao for my breakfast.

Times have changed. Those most pernicious of beverages, tea and coffee, which, if their stimulating effect were removed, could not put forward a single point in their favor, have ousted chocolate—and I have sampled the best that India, Ceylon, China and Japan can produce in the way of tea, and that Costa Rica and Brazil can show in coffee without finding any worthy substitute for a proper chocolate. Cocoa, of course, is a poor thing against good chocolate at any time. But all this is beside the immediate question for, when speaking of "chocolate" today, we seldom mean the beverage, but rather the solid confection.

Concerning Grinding

In actual fact, to make the best flavored chocolate, it is only necessary to reduce the finest roasted and shelled cacao beans and sugar, with or without a little added cacao butter, to a reasonably fine state of division. I have before me at the moment undoubtedly the finest flavored chocolate on the market for eating purposes, and it is far coarser in texture than any other European or American brand: the true flavor of a very fine cacao has been retained, without loss, by rational treatment. If chocolate is ground too fine or too long processed, the cacao is inclined, as we have

already emphasized in a previous article, to lose aroma, and there is not the least doubt that stone and porcelain are the best materials to use in the construction of those parts of machinery that come into actual contact with the chocolate. Besides by all the laws of physics the finer the particles the more cacao butter that will have to be added to cover the greater surface exposed in order to secure a suitable product for subsequent operations. We are then in the realms of sophisticated chocolates that usually bear only a faint resemblance to chocolate as it ought to be. The presence of so high a percentage of fat in milk chocolate and fondant chocolate is, moreover, one of the reasons why chocolate today is regarded with suspicion by those wishing to retain the prevalent slim figure.

Why Separate Grinding of Cacao and Sugar

Both the cacao and the sugar are usually ground separately to a certain state of fineness before being mixed together. Many machines have, however, been devised whereby the two ingredients can be ground together for the obvious purpose of reducing the length of the process of chocolate-making and of avoiding the use of heavy and elaborate machinery. And, though not beyond possibility, no machine of this type has yet proved successful for at least three excellent reasons apart from the necessity of having to use more valuable cacao butter to facilitate the process:

1. The particles of cacao and sugar are, respectively, of very different degrees of hardness: the former being best and most easily reduced by a crushing or a tearing action, as on stone mills; the latter by hard blows comparable to those given by the blades of a high-speed distintegrator which splinter the larger hard crystals to smaller particles.

2. In order to stand the wear and tear of grinding together two such entirely different materials as cacao and sugar, the mills have to be made of steel. The objections to steel coming into contact with cacao, until the latter is entirely dry, have already been stressed. The fairly frequent refacing of the steel grinding discs and plates as the grooving wears down is also quite a serious matter and gives the "lie direct" to those who state the amount of iron added to chocolate by grinding on such machines to be negligible.

3. When crystal sugar is ground a considerable amount of heat is evolved, and to prevent local overheating (resulting in uncontrolled overheating of the cacao also, if sugar and cacao are ground together) water-cooled jackets, which are never entirely effective in practice, have to be applied behind the grinding surfaces.

It is indeed illogical to attempt to grind sugar and cacao together quickly, a fact that has been recognized in perhaps the most successful of all patented chocolate processes, but such grinding *can* be done slowly (very slowly) in a stone melangeur alone without any greater detriment to the chocolate than some loss of aroma by the long treatment necessary.

It may be argued that roll refiners, whether of steel or stone, do ultimately this very thing—grind cacao and sugar together—and that, therefore, that process should be detrimental to the finished product. And in fact it is so. Few people seem to have made the experiment for themselves but my contention can be proved by anyone starting with a cacao liquor of finest aroma, and testing its flavor (since the consistency will, of course, also vary with the degree of grinding) when thoroughly mixed with a reasonably finely ground sugar before and after reducing it on steel rolls to the state of smoothness demanded for the fondant and covering chocolates of today. The change in flavor with fine grinding is remarkable, but hardly one that, in my opinion, could be regarded by anyone with a delicate palate as an improvement.

Surmounting This Difficulty

In spite of all such argument, we are forced by the necessity for greater output in our factories, by universal indifference to fine cacao aroma and, hence, by the vitiated palates of the public to erect labor-saving and short-cut machinery—and machine manufacturers naturally endeavor to supply the demand by introducing machines that do not positively ruin the product. For which reason stone mills, stone melangeurs and stone-bedded conches seem to have become relics of the stone-age.

The logical method of overcoming this difficulty is one that I have long advocated

..... *and So Ends the Series*

With this article we regretfully conclude the series of "Chats On Chocolate" which have been appearing in THE MANUFACTURING CONFECTIONER *during the past two years. The titles and issues in which Mr. Whymper's "Chats" have appeared are as follows:*

1. "Use Less Accra"—November, 1928.
2. "Chocolate 'AuNaturel' "—December, 1928.
3. "Buy Cacaos By Brand"—January, 1929.
4. "Origin and Identification of Off-Flavors in Cacao"—February, 1929.
5. "The Chemistry of Color in Cacao"—March, 1929.
6. "Chocolate—Aroma Elusive"—April, 1929.
7. "Meet Mr. Cacao Owner"—May, 1929.
8. "Chocolate Quality and the Cacao Moth"—July, 1929.
9. "Arriving at a Blend"—September, 1929.
10. "Pre-Roasting Treatment of Cacao"—October, 1929.
11. "Preservation of the Aromas in the Roasting of Cacao"—November, 1929.
12. "Prostituting Chocolate Quality for Volume Production"—January, 1930.
13. "After-Development of Cocoa Aroma in Chocolate Coating"—July, 1930.
14. "Conserving Flavor in Cocoa Powder"—October, 1930.
15. "If You Aim to Produce the Best Chocolate . . ."—Current Issue.

and found effective, namely, to prepare the sugar by boiling it with water and subsequently graining it in such a manner that the particles resulting are of a soft consistency and of a size closely approaching the consistency and size of the cacao particles to be mixed and ground subsequently with the sugar. Then a rapid mixing in a melangeur and one or two quick grindings on roll refiners will reduce the chocolate mass to a state of fineness that could only be achieved by far longer exposure to the grinding elements, an exposure which, as we have seen, is both considerable and detrimental when hard crystal sugar (other than the impalpably small) is used. It should, however, be remarked that this method is no foolproof, short-cut process beloved of the lazy and indifferent, for success depends entirely upon the proper preparation of the sugar and requires careful attention to the composition of the sugar syrup, to the temperature to which it is cooked and to the speed at which it is grained. There are indeed many tricks in the process which, requiring care, do not commend it to most slap-dash manufacturers of chocolate, and for this reason its application has been sometimes condemned. Recent developments especially in the United States, are pointing, however, to a realization of the commercial possibilities of the process, and, after the technique has been somewhat simplified, it is my belief that the chocolate industry will benefit all round by its adoption.

What Differing Methods!

Carrying my memory back to a bare twenty years ago, one of the first principles of manufacture drummed into me in a first-class chocolate factory in France was the absolute necessity for excluding all water, steam or even damp air from the neighborhood of the chocolate during its preparation. I remember we used to dry our powdered sugar in hot chambers, and our cacao roasts were always high enough to reduce the quantity of moisture in the liquor to a very low figure. But then our subsequent processes were pushed through quickly, and at no time after roasting was the chocolate submitted to the high temperatures now so commonly employed. The chocolate after thorough treatment in the melangeur was blocked off and refined *cold* on stone rolls. Of course the process was very slow, but the results justified the treatment. Imagine my surprise then when in the next factory in which I worked—a well-known concern in Germany—the sugar was always added as a hot syrup, and the syrup worked for a short time by itself in a stone melangeur until graining just commenced. The cacao liquor (roasted about half the extent to that in France) was then

added, and the whole run in a warm stone-bedded melangeur until the consistency told the expert that it was ready for the stone refiners.

Aroma Not Improved by Presence of Water

Experience teaches us much, and I am now positively convinced that the presence of water up to a certain amount is, *at any time,* detrimental to chocolate during its manufacture: that is to say that cacao liquor is never improved in aroma when *much* water is present under any circumstances and that it is absolutely ruined by quite a small amount of water if *iron* machinery is used. The process recommended above, though not given here in detail, of using *properly* boiled and grained sugar does not fall under either of these objections because, when properly prepared, the amount of moisture in the sugar can be reduced below the danger minimum before the cacao is incorporated. Never in my life have I advocated, in the name of quality, the use of iron machinery in chocolate preparation though, since modern conditions demands its use, every care should be taken that there is not more than 1 per cent of moisture in the chocolate coming into contact with the metal parts.

Eight Points for Preparing the Best Chocolate

I am now prepared to end my present remarks on chocolate manufacture on this note which, taken in conjunction with precautions emphasized in previous articles, completes the Eight Points for the preparation of the best chocoloate.

1. **Use only the best cacaos selected for their particular and peculiar aroma.**
2. **Grade beans to size, and remove all debris before roasting the various grades separately. Remove all husk before grinding the nibs.**
3. **Roast according to the subsequent processes adopted—high if the chocolate is quickly pushed through to the finished product without further heat, lightly if the subsequent processes are long or attended by heat treatment.**
4. **Never process chocolate longer than is absolutely necessary. Long exposure to the air, and especially to a simultaneous heat treatment, is detrimental to true cacao aroma. Heat may develop a caramel flavor and increase the aroma of an under-roasted cacao but, as a rule, more cacao aroma is lost by long heat treatment in the air than could be developed under any circumstances.**
5. **Avoid contact of cacao liquor with steel or iron in all early stages of manufacture or when any appreciable amount of moisture is present. Compounds of iron with the tannins that cacao contains, that are so readily formed, can never improve the color and flavor of chocolate.**
6. **Short-cut processes, so far, have proved successful only in increasing output. Good chocolate demands the personal element for its successful production, and it is the personal element that short-cut processes endeavor to eliminate. Most of the short-cut processes advocated require the addition of more than usual cacao butter for successful operation.**
7. **Quantity production of chocolate, if at the same time quality is to be considered, is best accomplished on a series of units of strictly limited size. Chocolate is not a product that lends itself to preparation in bulk at any time and especially in machines with heating surfaces.**
8. **The best method for ensuring good results under any process of manufacture is to study the physical state of the main ingredients, cacao and sugar, in use—aroma, moisture-content, hardness of the particles, etc.—and to adapt conditions of manufacture to secure the best results or the results required for the finished product. Results are of first importance and the process adopted should be chosen to get those results. There is no royal road to the manufacture of the best chocolate. Cacao itself is a delicate article and variable in quality, and every batch of beans requires special attention to develop the best from it. The buyer, the roaster, the man in charge of the finished product and the chemist should form the committee determining the quality.**

Having got our chocolate as we require it for flavor and texture—first considerations where the connoiseur is concerned—we have admittedly to present it to the public in an attractive form that appeals to the eye as well as to the palate. It is true that most manufacturers pay more attention to this side of their business than to any other, seeing that they are aware of the psychological fact that a pleasing and proper appearance subtly conveys to the large majority of consumers the impression of fine quality. "All that glitters is not gold"—a fact known to monkeys and men—and I have seen hand-painted, satin-covered boxes sold with their contents at fanciful prices (in Europe let it be admitted) when the bon-bons were nothing but refuse fit only for the furnace, covered in a very doubtful chocolate of glistening and immaculate appearance. Two or three of the chocolates were, of course, covered in fancy foil. Fortunately these excesses are few, even if the principle of "eye-appeal" is almost universally exploited at the expense of quality, a failing that seems inevitable in this age of advertising, high standards of living and low standards of taste.

JANUARY

1st Month
31 Days { 5 Saturdays / 4 Sundays }
Birth Stone: Garnet
Birth Flower: Carnation

Day of Month	Day of Week	EVENTS
1	Th	New Year's Day. The usual resolutions are in order, but remember: One good resolve consistently adhered to is better than a dozen resolutions made today and broken tomorrow.
2	Fr	Annual inventories should be completed, or nearly so, by now.
3	Sa	By this time your St. Valentine's Day and Washington's Birthday lines should be well advanced. Almost time for delivery.
4	S	.....
5	M	Annual dinner and election, Candy Production Club of Chicago at the Midland Club.
6	Tu	No doubt your equipment has had that general overhauling it needed. If not, don't neglect it any longer.
7	W	Annual meeting Retail Confectioners' Association, Philadelphia, Pa.
8	Th	Regular meeting Buffalo Confectioners' Association, Buffalo, N. Y.
9	Fr	.....
10	Sa	.....
11	S	.....
12	M	Monthly meeting Board of Directors, Candy Institute of Philadelphia.
13	Tu	.....
14	W	Monthly meeting Candy Executives' Club New York City.
15	Th	Eastern Confectioners' Traffic Bureau luncheon meeting, Hotel Pennsylvania, New York City. Meeting of New England Retail Confectioners, Boston, Mass.
16	Fr	.....
17	Sa	Two months from today is St. Patrick's Day. Be prepared to deliver your orders early—there will be lots of good business to be had for those who can deliver the goods.
18	S	.....
19	M	Robert E. Lee's Birthday. Celebrated in many of the Southern States.
20	Tu	.....
21	W	This is graduation time for many students all over the country. In another four or five months many more will be bidding farewell to their Alma Maters. In planning for the future don't overlook the possibilities of candy as a graduation gift.
22	Th	Don't forget—Easter goods should be *ready for delivery* by March 1st.
23	Fr	.....
24	Sa	.....
25	S	.....
26	M	Just a reminder to be ready for Mother's Day. This is the second best candy day in the year.
27	Tu	Annual Conclave of the Western Confectioners' Association at Seattle, Washington. (Three days.)
28	W	Ditto
29	Th	Last day of W. C. A. roundup.
30	Fr	.....
31	Sa	.....

FEBRUARY

2nd Month
28 Days { 4 Saturdays / 4 Sundays }
Birth Stone: Amethyst
Birth Flower: Primrose

Day of Month	Day of Week	EVENTS
1	S	.....
2	M	Start planning your Summer lines now. Summer assortments are popular and make up for some of the lost business on chocolate goods.
3	Tu	.....
4	W	Monthly meeting Retail Confectioners' Association, Philadelphia, Pa.
5	Th	Regular meeting Buffalo Confectioners' Association, Buffalo, N. Y.
6	Fr	.....
7	Sa	With the past Christmas Season still fresh in your minds, it is a good time to discuss your 1931 Christmas lines. Plan boxes and wraps. Eliminate any mistakes you may have made this last Season. Although of lesser importance, some thought on your plans for Thanksgiving would not be amiss at this time either.
8	S	.....
9	M	Board of Directors' meeting, Philadelphia Candy Institute.
10	Tu	.....
11	W	Monthly meeting of Candy Executives' Club, New York City.
12	Th	Lincoln's Birthday. (Not observed in all states.)
13	Fr	Are you superstitious? Then you'd better watch your step today!
14	Sa	St. Valentine's Day. There should be lots of candy sold today. Observe wherein others have done a good job; make notes of how you might have improved upon your own.
15	S	.....
16	M	.....
17	Tu	Mardi Gras. (Observed in Alabama, Florida and Louisiana.)
18	W	Regular meeting of the New England Confectioners' Club, Cambridge, Mass.
19	Th	.....
20	Fr	.....
21	Sa	.....
22	S	Washington's Birthday. (Observed in all States.)
23	M	Most places closed down today in celebration of Washington's Birthday.
24	Tu	.....
25	W	.....
26	Th	.....
27	Fr	There is a lot of nice business to be had in vacation and week-end assortments. Better begin giving this some real thought right now. Vacation time is not so very many months off.
28	Sa	.....

Photo Ewing Galloway, N. Y.

Soya bean flour cakes at a Manchurian Seaport awaiting shipment. For thousands of years Eastern nations have depended upon the soya bean as one of their chief sources of proteins, vitamins, fats and phosphatic salts.

A Food *of the* East Comes West

By DR. CHAS. E. FEARN

THE soya bean is the oldest food known to man, and authentic records going back for 5,000 years show it to be a food of the greatest antiquity. It is likewise the newest food known, so far as Western nations are concerned, as it is only quite recently that its extraordinary food values were made available for our use.

This apparent paradox is accounted for by the fact that though the Eastern nations have used the soya bean as a source of protein, vitamins, fats and phosphatic salts for thousands of years, their methods of preparing it, and the taste when it was prepared, were such as debarred it from the dietaries of the white races.

Prof. Haberlandt, as long ago as 1876, tried to induce the European peoples to use the soya bean as a food, but without any measure of success, due largely to three outstanding objections. In the first place it was found impossible to make use of all the valuable fats on account of the rapidity with which they turned rancid. Secondly, the taste was rather objectionable and not suited to European palates, and thirdly it was found that when any quantity was eaten, it gave rise to gastro-intestinal disturbances.

These objections made the soya bean quite impossible as an article of food for Western peoples, but since the immense growth of the use of soya bean oil in various industries, many firms have tried to market as a food a "Soy Bean Flour" made from the residues after the oil had been wholly or partially extracted. It will be seen that in so doing they have not overcome the second and third objections mentioned, i. e., taste and irritating properties, though they do overcome the first one of rancidity; but at what a cost!

The natural oil of the soya bean contains

plentiful supplies of vitamins A, D, and E, large amounts of lecithin, and phosphorus compounds. So, when the oil is taken out the soya bean it loses most of its unique value as a food and becomes merely a source of protein, and is not free from the objectionable taste, and bitter and irritating principles.

New Process Leaves Product Healthful and Palatable

These problems have taxed the ingenuity of the world's leading biologists, chemists, and dietitians for the last thirty years; thousands of scientific articles and reports of research work have been published, but in no case did anyone succeed in overcoming these objections to the soya bean as an article of food, until a process of treating it was discovered by Dr. L. Berczeller of Vienna, a physiologist and dio-chemist of international repute. In the Berczeller process the beans are treated in such a way as to get rid of the bitter principles and at the same time retain all the oils in such a form that they will keep free from rancidity practically indefinitely.

Just think what this means! The flour produced by the Berczeller process, retains the full 20% fat content of the soya bean with all the attendant vitamins, lecithin, etc. It has a pleasant and almost neutral taste and is readily digestible even by very young infants, while its protein food value is fully equal to that of meat, in the ease with which it is assimilated.

"Well," you may say, "how does all this affect the candy industry"? I suggest that it does, or soon will, affect it very materially, for this reason: We may take it that for all practical purposes, candy is "primarily a sweet plus a flavor." (I am quoting from the article by Dr. Alfred H. Williams in the June issue of THE MANUFACTURING CONFECTIONER.) Now a sweet in this case is a carbohydrate, and in candy this usually means sugar, and sugar, considered as a food, is a source of heat and energy, with no growth promoting elements (or protein), lecithin, or vitamins. Do not misunderstand my point. Sugar is an essential part of our diet, but why not balance it and make candy a *real* food by adding a proportion of some substance such as this product of the soya bean which, by the way, also contains a large amount of the well known Vitamin B?

Just think how important this is, especially for the children who are the largest consumers of candy. Mr. G. A. Radford, publicity manager of the Big Four Railroad, said among other things in his address at the Convention in Chicago on June 4th, 1930, "By the same token you (Candy Manufacturers) have a business which has heavy responsibilities. The health of our children is in your hands, and that means more to us than anything else in this world." These are words pregnant with meaning and truth, and there is no doubt that candy manufacturers will have to realize, sooner or later, that the public is gradually being educated to the food values of various kinds of candy and will, eventually, require something more than "sugar plus flavor."

"Sugar Plus Flavor" Plus—

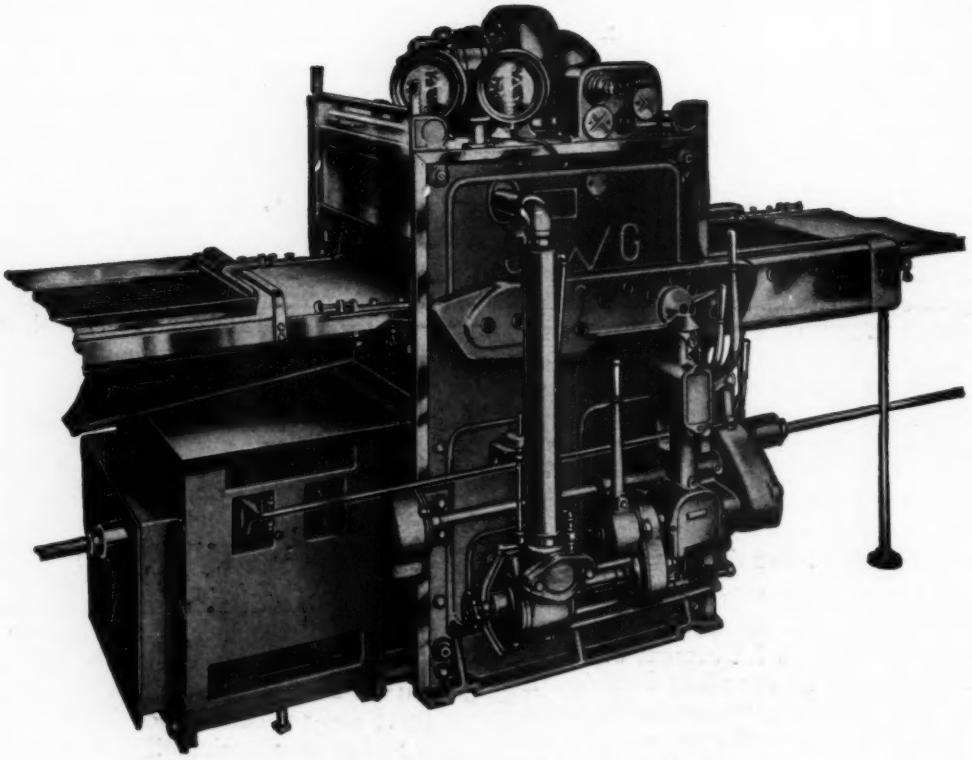
It is well known that sugar produces satiety after a time, and if this were reduced somewhat and its place taken by a rich protein, there would be less danger of this, more candy could (and would) be eaten, and with more advantage to both maker and consumer. I cannot help referring again to the excellent article by Dr. Alfred H. Williams in the June issue, as there are so many fundamental truths in it and so much originality of ideas, that I would recommend a further and more careful reading of it, as I have no space here for further references to it.

The old objection of the medical profession to candy generally, that it is merely "sugar plus flavor," still holds good of many types, and it looks as though the manufacturers who overcome this objection will have nothing to fear from this important profession, quite the contrary, in fact. I'm afraid I have left myself with little space to deal with the practical methods of using this soya bean flour in candy manufacture. I may just say, however, that in chocolate coatings, the use of it is a distinct advantage due to its high lecithin content which retards "bloom," and there is also a saving in cost of manufacture and an increase in food value.

In centers, fondants and fillings it also has great possibilities both from a commer-

(*Continued on page 67*)

GREER



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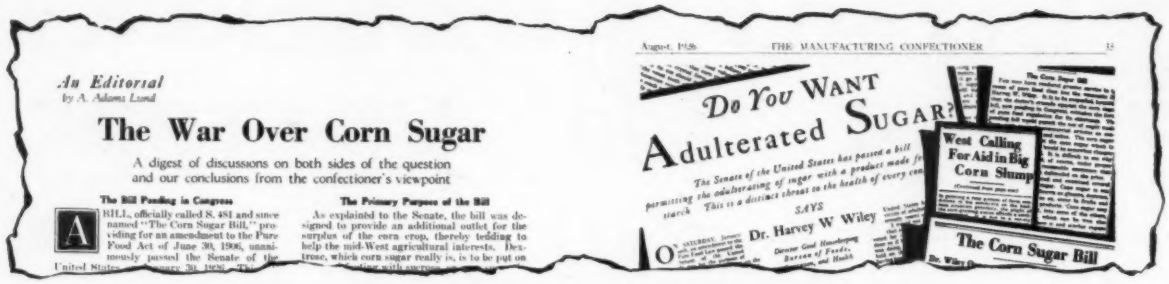

An Editorial
by A. Adams Lund

The War Over Corn Sugar

A digest of discussions on both sides of the question and our conclusions from the confectioner's viewpoint

The Bill Pending in Congress

A BILL, officially called S. 481 and since named "The Corn Sugar Bill," providing for an amendment to the Pure Food Act of June 30, 1906, unanimously passed the Senate of the United States on January 30, 1926. The

The Primary Purpose of the Bill

As explained to the Senate, the bill was designed to provide an additional outlet for the surplus of the corn crop, thereby tedding to help the mid-West agricultural interests. Dextrose, which corn sugar really is, is to be put on

August, 1926 THE MANUFACTURING CONFECTIONER 15

Do You WANT Adulterated SUGAR?

The Senate of the United States has passed a bill permitting the adulterating of sugar with a product made from starch. This is a distinct threat to the health of every consumer

SAYS Dr. Harvey W Wiley

West Calling For Aid in Big Corn Slump

The Corn Sugar Bill

In August, 1926, under the heading "The War Over Corn Sugar," THE MANUFACTURING CONFECTIONER presented a digest of the arguments for and against the corn sugar bill, then up for consideration by the Congress of the United States.

Refined Corn Sugar Now on Par With "Sucrose"

as Far as Federal Labeling Requirements Are Concerned

"To deny corn sugar the advantage of the market its merits warrant," says Arthur M. Hyde, Secretary of Agriculture, "would be to perpetuate the prejudices of twenty-three years ago and to deny any progress in the processing and refining of wholesome foods."

CORN sugar is now on a par with cane and beet sugar so far as the Federal Food and Drugs Act is concerned.

For the first time in twenty-three years, the use of corn sugar (refined dextrose) is permitted in *all* foods without a declaration of its presence being required. The removal of the ban on corn sugar is another instance of federal recognition of process development, an encouragement which industrial research has reason to expect.

While corn sugar has been permitted heretofore in confectionery, ice cream and other products without declaration, the ruling which made necessary its declaration when used in canned foods has, to a certain extent, stigmatized it even in the eyes of those manufacturers who have enjoyed the privilege of using it freely without so labelling their products. The removal of this "stigma" by Secretary Hyde gives the sugar consuming industries a free rein in using refined corn sugar according to its merits in getting desired results in sweet foods without having to "explain" the character of their sweetening agent.

Corn Sugar in Chocolate Coating Now Permitted

Heretofore refined corn sugar has been permitted in any kind of confections except chocolate. The official definition of chocolate specified "Sugar (sucrose)"; now *dextrose* may be used without objection from any food inspector on legal grounds. The chocolate industry is just beginning to make some practical demonstrations of the application of refined corn sugar to the manufacture of coatings and solid chocolate work.

Text of Mr. Hyde's Ruling

"Corn sugar (dextrose) when sold in packages, must be labeled as such; when sold in bulk must be declared as such; but the use of pure refined corn sugar as an ingredient in the packing, preparation or processing of any article of food in which sugar is a recognized element need not be declared upon the label of any such product.

"Nothing in this ruling shall be construed to permit the adulteration or imitation of any natural product such as honey by the addition of any sugar or other ingredient whatever."

Secretary Hyde's statement, as it appeared in the United States Daily the day following his announcement, is reproduced herewith in its entirety:

"THIS ruling removes a discrimination against the use of corn sugar which has too long been permitted. The requirement heretofore that the presence of corn sugar as an ingredient in prepared foods be declared on the label was not a matter of law, but was a matter of administrative interpretation of the law. This ruling, therefore, involves no change in the Federal Food and Drugs Act, nor does it change the rules with reference to labeling of harmful or injurious ingredients. Labeling of such ingredients still is required.

Corn Sugar of 1908 Was a Very Different Product

"When the Federal Food and Drugs Act was passed 23 years ago corn sugar was a muddy, brown product less than 50 per cent sweet. Under conditions existing then, a prejudice existed against it. As a matter of administrative procedure, this Department ruled that its presence in a prepared food must be declared on the label.

"In the last 10 years great progress has been made in refining corn sugar. It is now a clear, clean, white, granulated sugar. It is a wholesome and healthful food. It is now about 75 per

Ruling Permits Unlabelled Use Of Corn Sugar

Secretary Hyde Repeals Regulation Requiring Declaration of Its Presence in Food

REMOVE RESTRICTION ON CORN SUGAR FOOD

Hyde Rescinds Order for Labeling of Canned Goods Products

BAR ON CORN SUGAR IN FOODS REMOVED

HALT BRANDING OF CORN SUGAR

WASHINGTON, Dec. 28 (AP).—Secretary Hyde today ruled that the use of pure refined corn sugar in preparation of any article of food need no longer be declared on the label.

CURB ON CORN SUGAR IN FOODS IS ENDED

Hyde Rules That Labels Need Not Show Its Presence, as It Is No Longer Inferior.

HUGE MARKET IS PREDICTED

On the 26th of December, nearly five years later, newspaper headlines told the world that the "war" was over! Corn sugar had gained its rightful place among wholesome foods.

cent as sweet as cane sugar. It has some properties more valuable than cane sugar. It has no qualities which are in any wise harmful to health. The reason for the old department ruling has disappeared. It is high time that the discrimination against it, based on an ancient prejudice, should disappear also.

The Case of Vegetable Oils Is Parallel to the Case of Corn Sugar

"At the beginning of the administration of the Federal Food and Drugs Act, this Department made the same ruling as to edible vegetable oils other than olive oil that has existed against corn sugar. Our regulations for many years required that the presence of any vegetable oil except olive oil in salad dressings must be declared on the label. But modern methods of refining made wholesome edible oils from cottonseed, peanuts and corn. The regulations requiring a declaration of their presence on the label was removed in 1923. The public was not injured—the administration of the law was not weakened. Quite the contrary. The case of edible vegetable oils is not distinguishable in principle from the case of corn sugar. It is desirable that departmental regulations should keep pace with industrial developments. They should not retard progress.

"If the use of corn sugar in prepared food products without labeling would serve in any wise to weaken either the Federal Food and Drugs Act itself, or the administration of the law, the damage has long since been done. For many years corn sugar has been used in confectionery, candy, ice cream, bakery products and prepared meats without its presence being declared on the label. The public has eaten these products and found them appetizing and healthful. The law has been in no wise weakened or undermined. No reason whatever exists for such discrimination.

"To deny to corn sugar the advantage of the market its merits warrant would be to perpetuate the prejudices of 25 years ago, and to deny any progress in the processing and refining of wholesome foods.

The Consumer's Viewpoint

"I cannot agree to the proposition that the purchaser of prepared fruits or other foods in which sugar is an element expects or believes that such sugar will always and everywhere mean sucrose. The purchaser of canned peaches, for instance, expects to buy primarily canned peaches. There is no declaration on the label that they are sweetened at all, the label declares only peaches. He looks to the manufacturer to guarantee that they will be tasty and appetizing. He expects the Federal Food and Drugs Act to insure their wholesomeness. If those requisites are fulfilled he is far from being deceived. He is entirely satisfied.

"Nor is there any danger whatever to the manufacturer of special brands whose formulas call for sucrose and whose brands are a guarantee of quality. This ruling can not affect them. If, on the other hand, its use is beneficial and wholesome without adversely affecting the appearance or taste of the product, the fact that corn sugar is cheaper ought to commend it to the consuming public who are entitled, as a matter of right, to demand food products on the most economical basis.

"There is also an affirmative economic reason for this change in departmental rulings. American agriculture is overproduced. The fact that production runs ahead of consumption is responsible for most of the ills of agriculture. The Federal Farm Board, farm organizations, many of the state colleges, and this Department are striving to re-establish the economic balance of agriculture. The control and limitation of acreage planted is one method of re-establishing that balance. Finding new uses and new outlets for crops is another method.

"We produce annually about 2,700,000,000 bushels of corn. Only about 275,000 bushels of this ever reaches primary markets. The sale price of this small amount fixes the farm price for the whole crop.

"There exists a potential market for corn through corn sugar variously estimated at from 5,000,000 to 100,000,000 bushels per annum. The smaller figure represents about 2 per cent of the cash corn reaching primary markets. The larger figure represents about 35 per cent. It is not likely that the larger figure will be realized for many years. Be the per cent large or small, the opening of this potential market for additional corn is a step in the right direction. If we fail to use all available methods of restoring agricultural balance, whether those methods represent great and spectacular gains, or merely short and unnoticed steps, we shall be derelict in duty.

"I believe that this modification removes an undeserved stigma from corn sugar; that it harms or deceives no one; that it weakens neither the Federal Food and Drugs Act nor its administration; that it is a just recognition of modern progress in refining; and that it will aid in some degree in re-establishing the economic balance of agricultural products."

The Western Confectioners' Association Are Holding Their Annual Meeting This Month

The Western Confectioners' Association are holding a three day convention in Seattle, January 27 to the 29th, inclusive. Mr. A. C. Baker of Denver is president of the Association and will preside at the meetings. Among the speakers will be Mr. Walter Hughes, secretary of the National Confectioners' Association; Mr. Nathan Eckstein, president the Schwabacker Bros. Grocery Co., Seattle; Dr. H. A. Burd, of University of Washington; J. G. McDonald of the J. G. McDonald Chocolate Co., Salt Lake City; Mr. M. W. Williams of the W. W. C. Wholesale Co., Pocatello, Idaho.

Mr. Charles R. Adelson Leaves Happiness Candy Stores

Charles R. Adelson, vice-president in charge of manufacturing of The Happiness Candy Stores and The Mirror Stores of New York City for eleven years, has severed his connections with these companies. These companies were recently taken over by Loft, Inc.

Profit Planning *for* 1931

An Understanding and Use of Modern Mechanisms of Management Will Have a Distinct Bearing on Your Success During 1931

By RALPH G. WELLS

Boston University, School of Business Administration

PROFITS can be planned as definitely as sales can be forecast and expenses budgeted. If an organization has proper records and the necessary analysis of past experience, the amount of net profit to be produced during the year can be planned and scheduled with a remarkable degree of accuracy. The problem of providing a definite system for planning profits is primarily a question of point of view. The chief obstacle to be overcome is a mental one, for it is the tendency of many minds to balk at what may seem to be a new idea.

Not Necessarily a New Idea—Many Firms Practice This Method

Profit budgeting is at present practiced by many firms. It merely means that in setting up the yearly budget they begin with the amount of net profit considered necessary for the year and work backward or forward (depending upon your point of view) from this amount to determine what sales volume will be required to produce these profits and what economies must be effected to yield the desired margin. Since the estimate of the sales volume required to produce the desired profits is generally larger than the actual sales volume which can be reasonably attained, it is necessary to attack overhead and operating expenses to reduce them to a point where the margin of net profits will be greater. This procedure has the advantage of leading to a very salutary overhauling and a detailed examination of individual expense items. At the same time sales efforts are pushed forward to bring the volume up as much as is possible.

Here Is the Method Used by One Successful Firm in 1930

At the beginning of 1930 the managing executives of a prominent and highly successful concern found themselves faced with the difficult problem of maintaining dividends on a reduced volume of business. Ordinary men might have thrown up their hands in despair or taken the attitude that nothing could be done about the matter; so why try to do anything? These men, however, had too much business ability and acumen to be caught napping, or to allow themselves to be lulled into inaction by any such "laissez-faire" point of view. To them a problem or a difficulty was something to be solved by immediate action.

Accordingly, the financial executives determined the approximate minimum net profit that would satisfy their requirements. This was compared with the normal net that could be expected from the sales estimate for the current year. As had been expected, the estimated normal net was considerably less than the required net. It was found, however, that due to the declining cost of raw materials a cut of approximately ten per cent in all other costs except labor would increase the margin sufficiently to yield the amount of net profits required.

The problem of ferreting out the places where adequate cuts could be made was assigned to the company accountants and engineers. Instructions were also sent to the head of each department, informing him of the situation and requesting his prompt cooperation in reducing by at least ten per cent the expenses of his department.

Engineers and Accountants with Cooperation of Executives Save the Day

The very exhaustive and painstaking as well as minute study of expenses and costs resulting from this insistent pressure brought forth the fact which probably applies to nearly every other firm; namely, that during the prosperity of 1928 and 1929 numerous unnecessary and perhaps extravagant expenses had crept into many phases of the company's activities—even in some of the best managed departments.

In the end the seemingly impossible was accomplished. Economies were effected in nearly every department, and the spirit of thrift engendered resulted in the elimination of needless waste in many ways. While the final report for the fiscal period involved has not yet been completed, the report of each successive month has shown net earnings to be in excess of dividend requirements.

This example illustrates clearly the reason why certain firms forge ahead even under difficulties, while others lose ground or barely hold their place.

Control of Net Profits Through "Net Profit Control"

Some organizations use a system of "net profit control" as an aid in increasing and stabilizing their profit earnings. This method includes, in

addition to planning and scheduling of profits as suggested above, a system of financial measurements whereby each activity of the business is judged solely from the standpoint of its contribution to, or its effect on, net profits. This system, as do all sound systems of financial control, assumes the existence of accurate and up-to-date knowledge of actual costs (estimated or fancied cost). With this information secured, each line of goods and each item in the line is analyzed to determine as accurately as is reasonably possible just how much profit and what ratio of net profit is made. Any line or item that fails to produce a satisfactory amount of actual net profit over and above all selling expense, overhead, and other expense charges is discarded.

Customers' accounts, sales territories, and salesmen's total volume are diagnosed with this same "X-ray" of actual detailed costs to determine how much (if any) actual net profit they yield. In examining such accounts there must be charged against them not only the gross cost of all goods sold but any expenses incurred on their account.

An Example of a "Net Profit Study"

As an illustration of the way various phases of the business are studied, there is given below an example of the items taken into consideration in judging the value of a customer's account from a net profit standpoint:

a. Net amount of actual cash received from customer....$——
(Do not include in above any credit for returned goods, adjustments, credits, discounts.)

b. From the above deduct total or gross cost of all goods shippped customer .....$——
(This total cost to include pro rata share of selling and all overhead costs.)

——

c. Balance equals apparent net profit.

d. From this apparent profit deduct any and every form of expense which has been incurred directly or indirectly in selling or handling this account.
Deduct actual loss on any returned, cancelled, or refused goods.
Deduct any selling expense in excess of standard ratio.
Deduct any shipping expense in excess of standard: include special rush shipments, extra trips of truck, special delivery, or shipments sent by more expensive methods as accommodation. Deduct cost of any free goods and loss on any goods manufactured or held especially for customer but not used by him.
Deduct cost of any special service performed for customer such as extra cost of making, handling, or shipping small or odd-sized lots, rush or sample orders, time spent in making adjustments or giving unusual attention to his orders.
Remainder (if any) equals probable actual net profit.

When this actual net profit has been determined, there still remains the problem of comparing the actual net with the standard or average net which experience demonstrates that it is reasonable to expect from such an account. Not infrequently, such comparison indicates clearly that the same amount of time, effort, energy, thought, and expense spent on a new customer would probably produce a larger net profit.

Through the use of this method, or a similar method of analysis, it is becoming more and more evident in all lines of business that some accounts are not worth while. Furthermore, shrewd business executives who think in terms of profits judge customer accounts, sales territories, and salesmen's activities not by sales volume but by actual net profits as shown by a comprehensive analysis of figures.

Other activities are also judged in the same way; for instance, the problem of warehousing and storing both raw material and finished goods would be examined from the standpoint of the cost of the various methods available and the long-run effect of each method on net profits. It may easily prove cheaper to buy in smaller quantities and pay a higher price for regular, frequent deliveries of just the right quantity of fresh material. It may possibly be unprofitable to make up large quantities of goods in advance of a rush period and store them in anticipation of customers' requirements. The extra cost of doing this, added to the loss from shrinkage, deterioration, and the possibility of loss from unsold goods, may more than offset probable net profits.

Net Profit More Important Than Cost

This type of thinking is not new to many plants where budgeting and systematic costing have been in practice. The primary advantage of Profit Planning and Net Profit Control is that it shifts the emphasis from the cost to the profit and from sales volume to net profit. The important thing to get across to our business associates today is the fact that it is the net profit, not the cost, that counts, and that, in many instances, the more expensive method may yield larger net profits than a cheaper way. We must also keep firmly in mind the fact that volume is less important than net profit.

Much real harm can be done by allowing the organization to continue in the old-fashioned and somewhat antiquated habit of thinking that sales volume and low cost are the major objectives. Sales volume and low costs are not in themselves always the key to business success. Tremendous aids and sometimes essential, yet in many instances they may prove to be handicaps. Instances can be cited where they have been the cause of ruin and failure. In fact, it is typical of the inexperienced and unsuccessful business executives to strive for sales volume and low costs instead of concentrating on net profits. It is frequently necessary to spend money to make money, and low costs may tempt one into a large volume of unprofitable sales.

While we must never lose sight of the value and importance of sales volume and of low costs, we need to think of them merely as tools which, in the hands of competent executives, usually produce profits. Under certain circumstances they may produce loss instead.

To adjust ourselves to this new point of view, another change in our thinking is necessary. We must discard that misleading term GROSS PROFITS, using instead GROSS MARGIN. "Gross Profit" is a treacherous bit of quicksand on the road to financial success. Many an executive has been lulled into fancied security through contemplation of the size of his Gross Profit, failing to realize that out of this Gross Profit must come all sorts of overhead, including expenditures for sales, advertising, administration, packing, shipping, fixed charges, and all of that endless list of expenses that continually threaten to engulf us. Really, there is only one genuine profit, and that is NET PROFIT.

1931—A New Opportunity

Nineteen thirty-one presents a new and somewhat unusual opportunity for increased profits. Due to conditions prevailing during the year 1930, nearly every firm has been forced to reduce its expenses

to the lowest point. Where this has been done wisely rather than by some hit-or-miss rule of thumb, the ratio of operating efficiency per dollar expended is high (omitting, of course, fixed charges and certain overhead items which cannot be reduced proportionately). Adjustments to 1930 conditions have, at least, enabled us to trim all our costs down to bed rock. This gives us a firm foundation on which to build 1931 profits when business increases.

Hold Everything! Consolidate Gains! Prepare Now for Increased Volume

The problem is to hold gains and economies and by keeping costs down to their present level as business begins to pick up, maintain the ratio of expense increase well below the rate of sales increase. This problem can best be solved by making a careful study of plant and personnel capacities so that we may know just how much additional business each department can handle without further increase in expenditures.

Such a study should also consider the most economical method of increasing departmental capacities. By anticipating now this problem of the demands of increased sales volume upon our organization, we can avoid the helter-skelter methods frequently used in the face of a rapid influx of orders.

During periods of depression the average dealer holds off his buying until he is certain that the turn has come. This waiting until the last moment results in his running short of merchandise, so that he does not have enough to supply customer demand. Then he and all the other "averages" send in their orders with a rush.

Such a rush catches many firms unprepared, and in the eagerness to accommodate customers they forget expense and resort to wasteful methods of increasing the working force and its output. Furthermore, this sudden rush of business, particularly if it continues for a while, creates the impression that the same volume will continue indefinitely and expenses are allowed to become inflated unduly. For this reason it pays to begin now to plan and schedule profits and budget expenses in such a way that they will not increase too rapidly as business expands.

Here Is a Check List for Your Use

For the convenience of those who desire to make the most of the present opportunity to plan their 1931 profits now, there are listed below certain activities and methods which will prove helpful. Space will not permit a full enumeration of all of the details of procedure required to carry out the suggestions made in this article, but if any reader desires further information or suggestions as to method or the mechanics of the procedure, applied to his particular business, the author will gladly supply it.

PROFIT PLANNING AND SCHEDULING

Determine minimum net profit required for current year.

Compare with normal profit expected from estimated reasonable volume of sales. If normal profit is smaller than required, then: Check carefully all cost and expense items to determine possible reductions. Restudy sales promotion plans for possible increases in sales volume which may be secured without proportionate increase in expenditures.

Budget and schedule profit performance by month or shorter period if possible.

Expect and require strict compliance with this schedule.

Provide system of checks and control reports which will indicate promptly variations in any department from established schedule and cost standards upon which budget is based.

Investigate and correct immediately any causes of failure to maintain this schedule.

NET PROFIT CONTROL

Change thinking of entire personnel so that each key person will appreciate that net profits rather than volume or low cost are the ultimate goal.

Train employees to value volume and low cost only as they increase net profits.

Establish systematic program to insure regular overhauling of all activities of business from standpoint of contribution to and effect upon net profit.

Establish such standard control ratios for the measurement of effectiveness and efficiency of each activity as will indicate promptly any adverse tendency and serve as a constant guide to executives in charge.

ACCURATE DETAILED RECORD OF ACTUAL COSTS AND EXPENSE

Maintain adequate cost records preferably of Standard Predetermined type to indicate actual costs to manufacture and sell, and the expense of doing business. These should be in sufficient detail to show

These records are also needed as a basis for setting prices and as a which activities, which products, which territories, and which customers are worth while.

means of keeping cost control.

COST CONTROL

Appreciate the difference between cost records and cost control.

Make definite frequent use of cost data by investigating and correcting increases without delay.

Set up for each major operation and activity standard material, labor, and expense costs and arrange frequent checks of actual against standard.

Chart variation of actual as means of visualizing accomplishments.

ECONOMIC AND SALES FORECAST

Establish department or arrange with accredited economic agency to develop economic and sales forecast based on exhaustive analytical study of past ten or twenty years sales experience records.

Use sales forecast as basis for master program of activities during current period, breaking this down into assignments of volume to be produced by each territory and class of goods.

Include in this master program schedule of production, purchasing, and labor requirements.

Check this forecast at frequent intervals against actual volume and also with standard business indices, making such readjustments in forecast, master plan, and schedules as these comparisons indicate.

BUDGET AND CONTROL INCOME AND EXPENDITURES

Insure well-balanced and coordinated financial program by installing carefully planned system of budgetary control.

Require each department to keep within its allowance and insist on the setting up of necessary reserves.

Have provisions in budget for variation of expenditures of each department in accordance with fluctuations in sales volume.

MERCHANDISE, SALES, AND INVENTORY CONTROL

For greater efficiency and economy of operation, coordinate all merchandising activities, including sales promotion and selling through modern forms of merchandising control.

Eliminate unprofitable items from line and keep merchandise up-to-date through proper styling, designing, and engineering.

Concentrate on profitable lines and profitable customers.

Endeavor to secure balanced production schedule through careful merchandise planning, sales promotion, and anticipation of customers' demand during rush periods. This stabilizing of the production schedule also gives more steady employment and promotes efficiency and labor economy.

Secure frequent turnover of merchandise and avoid excessive inventories through comprehensive systems of coordinating sales and production and of inventory control.

(Continued on page 51)

Census Spotlights Popularity of Chocolate-covered Bars

CHOCOLATE - COVERED bars can now cite authoritative figures in support of their claim to leadership in the confectionery industry. The public consumed 368,626,466 pounds of them in 1929—almost as big a quantity as the combined production of fancy package, bulk and count chocolates, according to the Census of Manufactures taken during 1930.

The census figures, just released by the Department of Commerce, Washington, indicate that between 1927 and 1929 there was very little change in the value of the industry's output. In 1929 the total production of confectionery manufacturers amounted to $388,708,398, a decrease of eight-tenths of one per cent from the 1927 figure. However, in 1929 products other than confectionery amounted to $14,727,797 or 30.5 per cent less than 1927. Apparently manufacturers in the industry are turning the attention more to confectionery and less to related products. None of the figures cited here include chewing gum which the Department of Commerce treats as a separate industry.

Wholesalers as well as manufacturers of candy will be interested in the following figures which show how many pounds of the various kinds of candy produced were produced in 1929 and the value of each kind. No comparable figures for 1927 are available. The census for that year included products valued at $23,150,181 (5.9 per cent of the total), for which no data as to kind or quantity were presented, whereas the figure covered by this classification in 1929 is but $1,706,719, or one-half of one per cent of the total. It should be understood that the figures for 1929 are preliminary and are subject to revision

Confectionery—Production 1929 by Kind, Quantity and Value

Confectionery, including salted nuts, total value	$373,980,601
Chocolates:	
Total pounds	**373,652,520**
Total value	**$124,820,163**
Fancy packages—	
Pounds	139,207,632
Value	$ 70,232,840
Bulk—	
Pounds	170,817,404
Value	$ 43,775,523
Count—	
Pounds	63,627,484
Value	$ 10,811,800
Bars:	
Total pounds	**457,688,372**
Total value	**$ 86,580,445**
Chocolate covered—	
Pounds	368,626,466
Value	$ 68,277,841
Chocolate (solid, with or without nuts)—	
Pounds	25,208,399
Value	$ 5,630,018
All other kinds—	
Pounds	63,853,507
Value	$ 12,672,586
Hard candy:	
Pounds	215,555,345
Value	$ 33,480,925
Caramels and chewing candy:	
Pounds	92,768,775
Value	$ 15,067,809
Gum work:	
Pounds	95,920,861
Value	$ 10,688,599
Pan work:	
Pounds	67,455,695
Value	$ 9,273,166
Marshmallows:	
Pounds	53,753,880
Value	$ 8,427,853
Lozenges:	
Pounds	29,264,670
Value	$ 6,167,785
Other confectionery, value	$ 60,600,009
Salted nuts, value	$ 17,167,128
Not reported by kind, value	$ 1,706,719

Summary for the Confectionery Industry 1929 and 1927

	1929.	1927.	Per cent of increase or decrease.
Number of establishments	1,925	1,908	0.9
Wage earners (average for the year)	62,633	63,163	— 0.8
Wages	$ 55,646,006	$ 56,980,548	— 2.3
Cost of materials, containers for products, fuel and purchased electric current	$213,009,107	$218,372,553	....
Products, total value	$388,708,398	$391,927,343	— 0.8
Confectionery, including salted nuts	$373,980,601	$370,751,150	0.9
Other products	$ 14,727,797	$ 21,176,193	—30.5
Value added by manufacture	$175,699,291	$173,554,790	....

Stop Selling Candy!

Big Sales Volume does not always Indicate Profitable Plant Operation

By F. A. Magee

YOU hire a salesman, extol to him the virtues of your product, impress upon him your sales policies and methods, equip him with samples and order blanks, surcharge him with enthusiasm, and send him forth to produce sufficient orders to enable you to operate your factory continuously and profitably.

Your salesman goes forth to call upon the trade. He sees the potential customer, displays samples, tells of the merits of the product, quotes his prices and, perhaps, receives an order. The order may be small or large, for four items or forty. It may be confined to one type of product such as bulk goods or may embrace bar, bulk, penny and package items.

The order is then turned in; and, if the items are not stocked, production orders are issued and the various operations necessary to the manufacture of such goods are completed that the order may be filled and delivery to the customers made.

The order may include so many pounds of candy corn, almost entirely a machine-made product and also fancy package goods entailing considerable hand-dipping, packing and other forms of human labor.

Plant Performance Is What You Really Sell

ALTHOUGH these two forms of product are widely divergent in finished form, in shape and size, as well as ingredients and methods of manufacture, they are decidedly similar in that both products have provided for your factory just so many more hours of work for your employees and equipment. Those hours may have been devoted to the production of candy corn or fancy package goods or any of the other items specified in the order. Nevertheless, regardless of what kind of candy was ordered, regardless of what raw materials were necessary, regardless of what mechanical operations were necessary to production, they are all analogous in that they all required a certain number of hours of use or performance of labor and its appurtenances.

All orders, no matter what kinds of candy they may specify, resolve themselves into one thing when received at the factory—additional "plant performance." Your salesman, although taking orders for candy, is really selling "plant performance."

If, regardless of what commodities may be included in the line, your salesman is really selling "plant performance," we must determine just what constitutes "plant performance." Does it consist only of those physical operations actually necessary to convert the raw material into the finished product, or is "performance" far more comprehensive in its scope?

The casual visitor to an industrial plant receives somewhat different impressions from those gained by a trained industrial investigator. The casual visitor sees the working of the factory in its entirety—buildings, equipment, laborers, clerks and material in various stages of preparation and assembly. His picture is not in detail. Probably no one operation or instrument stands out in prominence, and his picture might be compared to an artist's sketch of a busy city street drawn on a rainy day.

The Trained Eye Spots Inefficiency Quickly

IN the retrospect of an industrial investigator, minute details stand out, and in prominence are the apparent inefficiencies and the more expensive parts of the general performance; for example, labor.

Labor has a large influence over costs in most manufacturing industries, hence the distribution of overhead expense on labor, a generally-accepted plan in most systems of cost finding.

Even though labor may be a prominent item in factory costs, other items such as rent, depreciation, supplies, power, and clerical help are essential to the general performance of a factory.

As an illustration, consider the operation of coating a piece of bar goods with chocolate. Labor is, of course, the prime requisite in the operation of the enrobing machine; but if that labor and machine were used in the open air in January, their efforts would be futile. We, therefore, find it necessary to provide a building for the housing and protection of such units. Furthermore, if the building so provided were not properly heated, ventilated and lighted, the efficiency of the labor operating such machinery would be seriously impaired and would become very costly.

Likewise, if the machinery was allowed to become run down, if proper maintenance were not provided, an increase in costs would result through decrease in effectiveness and break-downs. Also, power must be provided to operate the machinery, clerical help is necessary to provide ample and correct materials for use in manufacturing the product, maintaining proper records, etc.

Plant or factory "performance" is, therefore, not just the physical operation necessary in manufacture, but is the combined effort and result of labor, buildings, equipment, clerks, and other appurtenances used until the product is completed.

The commodities the salesman sold—the candy corn and the fancy package-goods—were probably included in your line because your trade demanded them. Perhaps no thought was given as to whether these items were as profitable from a manufacturing standpoint as others also produced in your factory.

A well-known example of how manufacturing may be developed to produce maximum profits was discovered in the biscuit and cracker industry a number of years ago. At the time, it was the custom in that industry to provide for a ten per

cent profit when establishing sales prices.

Vanilla Wafers at that time sold at forty cents per pound and Fig Bars at thirty cents per pound. This condition showed four cents per pound profit on Vanilla Wafers and only three cents per pound profit on Fig Bars and, apparently, the Vanilla Wafer was the more profitable line; but, it was discovered that while only four hundred pounds of Vanilla Wafers could be produced per oven-hour, two thousand pounds of Fig Bars could be produced during the same period of time with the same oven. In other words, Vanilla Wafers, at four cents per pound profit, returned only $16.00 per oven-hour, while Fig Bars, at only three cents per pound netted $60.00 per oven-hour, nearly four times as much profit per oven-hour.

In this case, a sales policy which favored the sale of Vanilla Wafers and discouraged the sale of Fig Bars would appear to provide a much larger gross sales volume, but it would be decidedly incorrect from the standpoint of manufacture and net profit, for, whereas, the Vanilla Wafers show four cents per pound profit, the Fig Bars, because of their greater weight, provide nearly four times the profit with the same oven equipment in the same time.

Push Your Plant's Ability to Make Money

ANALYZE your business from this standpoint. Have your salesman stop selling candy. Tell him to sell plant performance, and by pushing those lines which enable you to get the most from your labor and equipment, increase your profits.

Commodities that create desire on the part of the buying public ultimately create competition in production and prices. Competition creates a necessity for production economy. Efficient performance is the basis of economical operations, so it is reasonable and logical to assume that financial gain—the ultimate goal of every manufacturer—is, when facing keen competition, wholly dependent upon organization performance in conjunction with management.

Good management is necessary to success. Efficient performance is essential to good management, for without it management cannot be classed as "good."

Complete responsibility for the success or failure of a business enterprise is with the management, and the management must have knowledge of past events and present activities in order to decide on future policies. *It must also have definite control over organization and plant performance* to insure the compliance of the organization with the policies decided upon by the management.

"Performance" should be considered in the light of energy, effort, force, or the application necessary in transforming raw materials into finished commodities. It embraces all the instruments necessary to operations, including buildings, equipment, labor, clerical help, power, light, supplies and various expenses.

Invisible forces are not measurable by lineal, liquid or weight standards; nevertheless, definite, accurate means of measuring forces, energies, and even resistances, have been provided with the creation of the Dyne, Ohm, Watt and Horsepower.

In the next article I shall illustrate with concrete examples, the use of the "FAM," as a measure of plant performance in the candy industry, setting forth how the "FAM" is used to measure definitely and control plant "performance"—the real product of all candy manufacturers and the universal product that is sold by all candy manufacturers' salesmen, regardless of the type or variety of line that they represent.

Profit Planning for 1931

(*Continued from page* 48)

PRODUCTION PLANNING AND SCHEDULING

Secure maximum operating efficiency through effective planning and scheduling of manufacturing program and as an aid in keeping costs down, in keeping inventories down, and in coordinating sales and production.

ELIMINATE WASTE, REDUCE UNIT COSTS, IMPROVE QUALITY

Maintain an effective engineering and technical research department to seek continual improvements in product and in method, to discover economies in method as a means of reducing unit costs, and to find means of eliminating waste, not only of material, but also of time and energy.

In adopting any system an executive should appreciate that after all the system is primarily a mechanism designed to increase and multiply the ability and effectiveness of the management. Its effectiveness is, therefore, dependent on the good judgment, skill and acumen of the management.

Experience is demonstrating more and more clearly each year, however, that the firm today that fails to adopt modern management methods is just as seriously handicapped as the salesman who fails to make use of the automobile and telephone in covering his territory and keeping in touch with his trade.

Since an understanding and use of the modern mechanisms of management will be so vital to success in 1931 THE MANUFACTURING CONFECTIONER has arranged, as a part of its service to readers, to assist them with their management problems. Readers are invited to avail themselves of this opportunity and to submit topics and problems for discussion in these columns. If the reader prefers, his inquiry will be answered by personal letter. Send such inquiries to Management Editor, The Manufacturing Confectioner Publishing Company, 303 West 42nd Street, New York.

A. R. C. Meets at Boston May 18 and 19

The 1931 convention of the Associated Retail Confectioners of the U. S. will be held at the Statler Hotel, Boston, on May 18 and 19, 1931. In some trade publications the misleading announcement has appeared stating that the convention was to be held at Swampscott, Mass., the dates being undecided. On May 20 those attending the convention will motor from Boston to Providence, R. I., a distance of about 45 miles, and there be the guest of Gibson's, Inc., the smallest state's leading confectioners. As usual the open forum discussion seems likely to be the high spot of this year's convention, which is the association's fifteenth.

Jackman Candy Company Reopens in Oklahoma City

After being out of the confectionery manufacturing business for the last year the Jackman Candy Company, of Oklahoma City, Okla., has re-opened. George B. Jackman and C. E. Jackman, the operators of the company, have been in the candy business for 20 years.

An Open Letter to the Members of the National Confectioners' Association of the United States and the Candy Industry:

THERE is a tremendous latent buying power for confectionery even now during this period of depression. This latent buying capacity should be transformed into an active reality. This can be accomplished only by securing a more favorable consumer acceptance of candy. This candy consciousness can be stimulated by supplying the consumer with a product that appeals to him more favorably. Candy appeal is made wholly through the senses of sight, taste and smell. Approved appearance and better display of candy and better eating quality will secure for our product a bigger share of the consumer's dollar. We must not forget that we are living in an age of "optional consumption" and that the limits of candy consumption are very elastic. This is true today as never before because of the tremendously increased number of products that are bidding for the consumer's dollar.

• • •

IT IS one thing to recognize these facts and it is quite another proposition to put into active operation such a policy as will bring the desired result in an industry as large as the candy business. There is perhaps no word that has been more misused in the candy industry than the word "quality." All too often the expression is an empty phrase without any foundation in fact. No matter how inferior is the class of goods manufactured by a given producer, he still uses as a selling argument the "good quality" of his candy. The candy manufacturer has placed no standards of quality in the hands of the distributor. Naturally enough then, since each producer whether he makes good, bad or indifferent candies, talks equally loud regarding the "good quality" of his product, the distributor drifts into the habit of allowing price to determine his purchases. He does know the value of a dollar because it is standardized. The distributor passes the candies that he has purchased on a price basis on to the consumer with the same stamp of "quality" with which the manufacturer branded them. The consumer cannot set up any standard of quality for himself except as he judges of an individual purchase after he has eaten the goods. By that time, the damage has been done. If the candy purchased proves to be poorly flavored or of unsatisfactory texture, this consumer's good will toward candy slips backward

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THE bugaboo of over-production is as old as industry itself. We find Benjamin Franklin two centuries ago calling attention to the fact that there were too many merchants and warning these merchants against the importation of more goods than their customers could purchase. Our salvation in the candy industry does not lie in an attempt to control production. Neither can we cure the ills of our industry by price control. Uniformity of price is impossible in the absence of uniform quality in any given class of goods. Other industries have found that the only way out of difficulties such as we find confronting us today is through the production and distribution of a uniformly high quality of product. This is not a new idea to the candy industry. Much energy has been expended in talking about the needs of better quality but no concerted effort has been made to emulate other industries, many of which have brought order out of chaos, largely by improved quality of product.

It is absolutely impossible to expect to secure uniformly high quality in the various classes of confectionery without the establishment of standards of quality. Today there are absolutely no standards of quality of candies except those that each individual manufacturer sets up for himself. Even these individual standards are frequently not uniform but are varied to meet expediency.

This problem of securing uniformly better quality of candy is one that can only be solved through cooperative effort. It is a problem in which the public at large, as well as the candy manufacturer and the purveyor of materials to the confectioners, is interested. The establishment of standards for the quality of the vari-

ous classes of candy product will require standardization of materials used in manufacture and standardization of methods of manufacture. This is a huge undertaking and it can be accomplished only through a centralized organization of the highest type.

• • •

THIS is the contemplated goal of the proposed Candy Institute. Such an organization should bend its efforts toward securing improved consumer acceptance of candy. Such a program should enlist the hearty support of every intelligent factor in the candy industry and of the allied industries as well. There can be no reasonable doubt as to the advisability and necessity for work of this kind for the candy industry. Time is an important factor. This work should be inaugurated at the earliest possible date.

Individual manufacturers of candy should not sit idly by until this problem can be attacked by means of concerted organized investigational work. Much may be accomplished along this line if each individual manufacturer will determine that as for him and his house all products offered for sale will be free from adulterants and that good eating quality shall not be prostituted to low price. The inauguration of such a policy throughout the industry would result in improved consumer acceptance of candy because all products in each class of candies would present the maximum of consumer appeal in appearance, flavor and texture.

May your troubles of 1930 be soon forgotten and your best hopes for 1931 soon realized.

Yours very truly,

E. B. HUTCHINS,

President.

Old-Time Candies Used for Medicines

(If they failed to cure, at least they tasted good while going down, and added to the body's fuel—more than can be said of most medicines!)

In the "Confectioners Manual," published in 1866, we are told how to make:

Digestive Drops: Sugar, bicarbonate of soda, gum tragacanth, flavor.

Burnt Violets: Violet-petals and sugar. "These candies are used with benefit for affections of the chest." (Heart troubles, perhaps?)

Cachou Drops: Cachou and water, or mucilage of gum tragacanth, and sugar. "Excellent digestives."

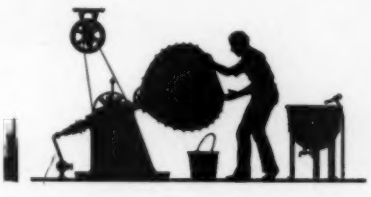
Health Drops: Musk, cloves, ambergris, saffron, basil-seed, orange-peel, mace, storax-calamite, nutmeg. Take four every day. "These pastilles facilitate digestion, create an appetite, and are excellent for persons suffering from debility."

Inflated Marshmallow Drops: Gum arabic, orange-flower water, sugar, whites of eggs. "These pastilles are good for colds."

In 1827 G. A. Jarrin, Italian confectioner of note, reported that "jujube paste is in great vogue in France, and on the Continent, as a medicine for coughs and colds."

The earliest known use of sugar in the human body was when honey was placed on cups by Grecian and Roman doctors, to disguise the bitter taste of medicines used in that day. "Like an apothecary without sugar" is an old saying as to lacking something essential. Greek physicians, several centuries before the Christian era, called sugar "Indian salt," and refined it in the laboratory, in very small quantities.

In recent times the true role of candy in therapeutics has been discovered by science. The remarkable purity of candy—excelled by no other food—has made it suitable for hospital use. Doctors order it for convalescents, in increasing amounts. Surgeons sometimes give candy before an operation, to keep up the patient's strength. Dr. W. D. Sansum, director of the Potter Metabolic Clinic, Santa Barbara Cottage Hospital, has had remarkable success in using candy for curing acidosis (brought on by ill-advised dieting, in which starches and sugars have been omitted).



The acetone type of acidosis, sometimes a very serious disease, is due, says Dr. Sansum, "to the overconsumption of fat, the underconsumption of sugar, or to the disease diabetes. It is due to the improper and incomplete combustion of fat. Fat is not completely oxidized in the body to the respirable carbonic acid except in the presence of burning sugar."

"7-11" Bought by Minter Brothers

"7-11," the popular candy bar manufactured for many years by D. Auerbach & Sons, is not going out of existence with the disappearance of this veteran manufacturing house. The trade-mark has been acquired by Minter Brothers of Philadelphia, who have already started producing it. Some of the special machinery used in manufacturing "7-11" has been installed at the Minter plant and a lively demand is reported. The style of package and the quality of the bar will remain unchanged.

New England Club Holds 139th Meeting

Nearly 400 members and guests of the New England Confectioners' Club attended the 139th regular meeting of the club at the Copley-Plaza, Boston, recently. One of the best dinners in the long history of the club was served. Following it, boxing and wrestling bouts gave the spectators an interesting evening. Herbert D. Foss, president of the club, presided.

Prominent Baltimore Manufacturer Shows Courage and Foresight

This Confectioner

FACED with the problem of more quality at less cost, complicated by the necessity of required greater floor space for the economic working of his people, solved it by replacing his 16-inch ENROBERS and COOLING TUNNELS and attachments with 1931 — 24-inch ENROBING EQUIPMENT throughout.

RESULT—

A saving of about twenty-five per cent. floor space enabling him to move his people and goods with speed and ease, thus producing better candy at lower costs, and with almost total elimination of scrap.

Orders went out on time. Mr. Voneiff was able to give his buyers something to praise—and he got all these benefits at the peak of his rush season.

Mr. Voneiff planned his changes with the assistance of a NATIONAL ENGINEER, with the result that in three days (the week end) the transformation was accomplished—the old machines were removed and the new battery of ENROBERS was in operation.

HERE IS A SERVICE that you may be assured of from NATIONAL EQUIPMENT Engineers.

SOME REASONS WHY:

THE ENROBER has:—

***Automatic control of chocolate temperature*—uniform thickness of coating.**

***Mechanical Detailing Device*—uniform shape of pieces, without "feet" or distorted bottoms.**

***Kettle type of chocolate tank*—uniform blend of coating maintained.**

***High speed—Automatic Decoration*—uniform production assured.**

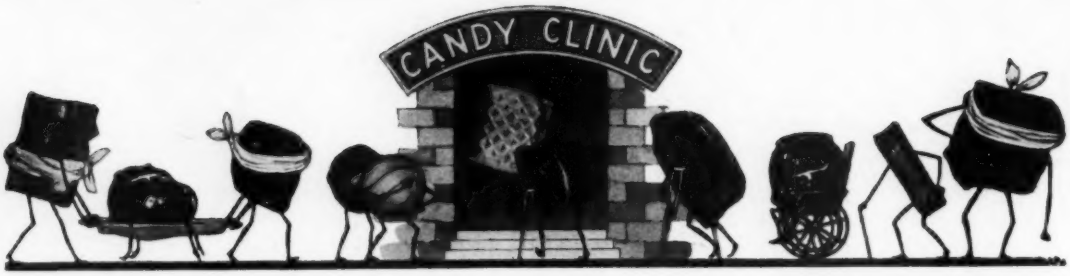
***Wonderful eye-appeal, but sanitary and hygienic*—uniform standards with other food industries.**

There is a *National Machine* for every candy-making purpose

It is good commonsense to check up on your production costs right now. The National Engineer is equipped to assist you regardless of the type of goods you are making. His counsel may mean the difference between profit and deficit for your plant next year. It costs you nothing to have him confer with you but it may be a revelation to you to become acquainted with his services and advice.

National Equipment Company

Springfield, Mass., U. S. A.



The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Each month he picks up at random a number of samples of representative candies. This month it is Holiday Assortments; next month it will be Dollar Chocolates. Each sample represents a bona-fide purchase in the retail market, so that any one of these samples may be yours.

This series of frank criticisms on well-known, branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of the M. C.

Holiday Assortments

Code 1A 31

Christmas Assortment — 5 lbs. — $1.99

(Purchased in a department store in Boston, Mass.)

Appearance of Package: Good. Outside wrapper of brown paper.

Box: Full telescope type. Top printed with seasonal design. Tied with red ribbonzine.

Appearance of Box on Opening: Very good. All pieces in place and packed well, two trays and a bottom layer. One pineapple slice in center of the top layer. All pieces cupped.

Chocolate Coating: Dark; sweet.

Gloss: Very good.

Taste: Good.

Strokes: Nicely done.

Centers—

Vanilla Caramel: Good.
Peanut Cluster: Good.
Nougat: Good.
Marshmallow: Good.
Caramel and Jelly: Leaking. No flavor could be tasted in the jelly.
Red Jap Jelly: Flavor could not be tasted.
Pineapple Slice: Good.
Vanilla Cream: Good.
Pink Cream: A slight taste of raspberry.
Coffee Cream: Good.
Fig Blossom: Not enough center.
Orange Cream: Good.
Molasses Chip: Good.
Peanut Taffy: Good.
Double Dipped Almond: Good.

Assortment: Good.

Remarks: This box was put up well and the candies were of good quality. The box did not have the manufacturer's name or address printed in or outside. Considerable trouble can be expected when the maker's name does not appear.

Code 1B 31

Christmas Assortment—1 lb.—25c

(Purchased in a chain department store, Boston, Mass.

Appearance of Package: Good.

Box: One layer. Plain white with ribbon printed in red.

Appearance of Box on Opening: Good.

Chocolate Coating: Dark.

Gloss: Fair.

Taste: Good for this priced goods.

Centers—

Pink Cream: Could not tell whether flavor was strawberry or raspberry.
Coffee Cream: Fair.
Orange Cream: Poor flavor.
Chocolate Cream: Tasted like scrap.
Vanilla Cream: Fair.

Assortment: Too small.

Remarks: This is a crude box of chocolates, but at the price charged we can hardly expect anything better.

Code 1C 31

Assorted Chocolates — 2½ lbs. — 99c

(Purchased in a retail drug store in New York City.)

Appearance of Package: Good.

Box: Full telescope. Printed in yellow. Name in rose and blue. Tied with yellow ribbonzine.

Appearance of Box on Opening: Good. All pieces in place. Four of them were foil wrapped.

Chocolate Coating: Dark.

Gloss: Good.

Taste: Fair.

Strokes: Good.

Centers—

Maple Cream: Good.
Pink Cream: Fondant good; no flavor could be tasted, however.
Nougat: Tasteless. A few peanuts were used.
Marshmallow: Good.
Chewey Piece: Could not tell whether this was a caramel or taffy.
Jelly and Cream: Tasteless and a very poor piece of candy.
Vanilla Cream: Fair.
Caramel: Not a good caramel.
Peppermint Cream: Fair; flavor not right.

Assortment: Too small.

Remarks: This box of chocolates figures about 40c per pound. At this price it is not up to standard. The centers are of the cheapest kind and the coating should be improved. Unless this box of chocolates is gone over and better goods are made it will not enjoy a very long "life" as some very fine chocolate goods can be bought at 40c and less per pound.

Code 1D 31

Assorted Chocolates — 2½ lbs. — $1.00

(Purchased in a department store in Boston, Mass.)

Appearance of Package: Good. Tied with gold tinsel ribbon.

Box: Full telescope. Christmas wrapper.

Appearance of Box on Opening: Good.

Chocolate Coating: Dark.

Gloss: Good.
Taste: Good.
Strings: Done by hand; good.
Centers—
Cocoanut Paste: Good.
Vanilla Cream: Good; red foiled.
Peanut Nougat: Good.
Chocolate Cream: Good.
Orange Cream: Good.
Lemon Cream: Good.
Raspberry Cream: Flavor bad.
Strawberry Cream: Good.
Wintergreen Cream: Good.
Peppermint Cream: Good.
Plantation: Good.
Nougat: Good.
Sugar Jelly: Good.
Peaunt Taffy: Good.
Raisin Cluster: Good.
Almond Nougat: Good.
Peppermint Pattee: Good.
Fruit Cream: Good.
Vanilla Caramel: Good.
Peanut Cluster: Good.
Assortment: Good.

Remarks: The dipping and packing of these goods was very well done. The coating and centers were good. With few exceptions the flavors were good, too. This is one of the best samples examined by The Clinic, at this price.

Code 1E 31

Assorted Candies—3 lbs.—$1.00

(Purchased in the lobby of an office building in Chicago, Ill.)

Appearance of Box: Good for this priced goods.

Box: White. Full telescope, printed in red and green. Tied with red ribbonzine.

Appearance of Box on Opening: Good. This box is made up of chocolates, bon bons and taffees.

Chocolate Coatings: Milk, sweet and bittersweet.

Bittersweet Coating—
Gloss: Good.
Taste: Good.
Strings: Plain.
Centers—
Chocolate Hand Roll Cream: Good.
Vanilla Walnut Hand Roll Cream: Good.
Maple Hand Roll Cream: Good.
Vanilla Cocoanut Hand Roll Cream: Good.
Vanilla Hand Roll Cream: Good.
Orange Hand Roll Cream: Good.
Vanilla Buttercream: Good.

Milk Chocolate Coating—
Gloss: Good.
Taste: Good.
Strings: Plain.
Centers—
Vanilla Caramel: Good.
Vanilla Nougat: Good.

Sweet Chocolate—
Gloss: Good.
Taste: Good.
Strings: Plain.
Centers—
Stuffed Dates: Good.
Wrapped Butterscotch Taffy: Good.

Bon Bons—
Maple: Good.
Pink Walnut Top: Cocoanut center; good.
Green: Cocoanut; good.

Remarks: This box at the price is one of the best ever examined by the Clinic. The quality of the candies was of the finest. The profit certainly can not be great. In fact, this box is being sold too cheaply.

Code 1F 31

Christmas Assortment — 5 lbs. — $1.65

(Purchased in a department store in Boston, Mass.)

Appearance of Package: Good. Neat looking. Tied with red and gold ribbonzine.

Box: Full telescope. Red wrapper. Printing in gold. Not a cheap looking box.

Appearance of Box on Opening: Good.

Chocolate Coating: Dark.

Gloss: Good.

Taste: Fair.

Strings: Fair.

Centers—
Maple Cream: Good.
Peanut Taffy: Good.
Butterscotch: Good.
Vanilla Caramel: Good.
Walnut Top Vanilla Cream: Good.
Plantation: Good.
Coffee Cream: Good.

Peppermint Cream: Good.
Orange Cream: Flavor not right.
Raspberry Cream: Flavor not right.
Chocolate Fudge: Taste not right.
Nougat: Good.
Lemon Cream: Good.
Green Foiled Piece: Cream; flavor could not be determined.
Red Foiled Piece: Cream; flavor could not be determined.
Vanilla Cream: Good.
Peanut Butterscotch: Good.
Nougat with Gum Drops: Good.
Peanut Butter Blossom: Good.
Assortment: Good.

Remarks: This box contained some very good pieces and also some that were very poor. At the price, we cannot expect too much, but feel that this box is not quite up to par. Some of the flavors were of very cheap quality; the coating, too, could be improved upon.

Code 1G 31

Assorted Chocolates—5 lbs.—$1.00

(Purchased from a street peddler in Brooklyn, N. Y.)

Appearance of Package: Fair. No outwrapper used.
Box: Full telescope. Holly wrapper.
Appearance of Box on Opening: Bad. Pieces broken, upside-down, etc.
Chocolate Coating: Dark.
Gloss: Hardly any.
Taste: Fair.
Strings: Machine.
Centers—
Nougat: Tasteless.
Peacan Top: Good.
Dark Cream: No flavor could be tasted.
Raspberry Cream: Fair.
Orange Cream: Fair.
Caramel: Too hard to eat.
Pistachio Cream: Fair.
Almond Top Cream: Good.
Raspberry Jelly: Fair.
Lemon Cream: Fair.
Assortment: Too small.

Remarks: The peddler who sold this package was also selling other packages bearing the name of a manufacturer who has been out of business for at least five years. He said this Christmas assortment was made by the same firm. There was no name on the box to substantiate this, however. The goods were in very poor condition; it was candy of the cheapest kind.

Code 1H 31

Chocolate Blocks—70 grams—35c

(Made in Holland. Purchased in a grocery store in Detroit, Mich.)

Appearance of Package: Good.
Box: Extension top and bottom.
Appearance of Box on Opening: Good
Letters: Made of solid chocolate.
Chocolate: Dark; sweet.
Gloss: Fair.
Taste: Good.
Moulding: Very good.

Remarks: This is a novelty for children but seems a trifle high priced at 35c. Suggest a transparent cellulose wrapper be used instead of the white tissue paper.

Code 1I 31

Chocolate Santa Claus—1½ ozs.—15c

(Purchased in a retail candy store in Chicago, Ill.)

This is a moulded Santa Claus foiled in printed foil. Packed in a folding box printed in silver, red and green.
Box: Makes a good appearance.
Foil: Very good printing and colors.
Moulding: Good.
Chocolate: Dark; sweet.
Gloss: Good.
Taste: Good.

Remarks: This is a well made piece of goods and is of fine quality. To avoid trouble would suggest the name and address of the manufacturer be printed on the box.

Code 1J 31

Chocolate Santa Claus (no weight shown)—35c

(Purchased at a retail candy shop in Chicago, Ill.)

Appearance of Piece: Good. Transparent cellulose wrapper.
Moulding: Good.
Chocolate: Dark; sweet.
Gloss: Good.
Taste: Fair; very coarse and did not eat well.

Remarks: At the price a far better eating chocolate could be used.

Code 1K 31

Assorted Chocolates—1 lb.—59c

(Purchased at a leading department store in Chicago, Ill.)

Appearance of Package: Fair.
Box: Full telescope. White transparent wrapper.
Appearance of Box on Opening: Good.
Coating: Milk.
Gloss: Fair.
Strokes: Bag work.
Taste: Fair.
Centers—
Vanilla Marshmallow: Fair.
Caramallow: Caramel very tough; marshmallow fair.
Vanilla Caramel: Too hard.
Vanilla Cream: Hard and tasteless.
Maple Cream: Hard and tasteless.
Nougat: Fair.
Assortment: Entirely too small.

Remarks: This box of candy is far from standard. Goods superior to this box of c hocolates are being sold at 39c per pound.

Code 1L 31

Assorted Confections — 8 ozs. — $1.00

(Purchased at a department store in Chicago, Ill.)

Appearance of Box: Very good. Neat, attractive appearance. White transparent cellulose wrapper used.
Box: Extension top and bottom. Coffee-colored box used.
Appearance of Box on Opening: Very good. Lining and partition very well done.
Chocolate Panned Almonds: Good.
Chocolate Hard Candy Filled Sticks: Good.
Hard Solid Moulded Piece: Good.
Coffee Bean Piece: Good.
Milk Chocolate Moulded Stick: Good.
Chocolate Panned Coffee Beans: Good.
Assortment: Too small.

Remarks: Everything about this box was of the best. The idea is a very good one but the assortment, we feel, should be more varied. Suggest a few pieces be added such as coffee cordials, coffee caramel, coffee chocolate soft paste, and a good coffee cream. There are any number of good pieces that can be coffee flavor and will eat well. As the box now stands it will be a disappointment to a number of people who are not fond of coffee.

Code 1M 31

Assorted Chocolates—$1.25 lb.

(Purchased at a department store in Chicago, Ill.)

Appearance of Package: Fair. Not up to standard of $1.25 boxes.
Box: One layer, telescope type. Cream color with gold printing in lower left-hand corner.
Appearance of Box on Opening: Good. All pieces in place and in good condition.
Chocolate Coating: Dark.
Gloss: Good.
Taste: Good.
Strokes: Good.
Centers—
Nougat: Good.
Molasses Nut Caramel: Good.
Vanilla Caramel Cocoanut: Good.
Almond Butter Taffy: Good.
Molasses Plantation: Good.
Vanilla Caramel: Good.
Vanilla Cream: Good.
Maple Walnut Cream: Good.
Molasses Cocoanut Caramel: Good.
Peanut Butter Blossom: Good.
Assortment: Too small.

Remarks: The coating and centers of these candies were made of very fine raw materials but at the price of $1.25 per pound the box was not quite up to standard. Fine chocolates can be bought at $1.00 a pound which would compare very favorably with this box of chocolates. The assortment is too small. Suggest at least five more different centers be used. Also include some fancy top pieces, one or two in foil cups, and a solid piece of chocolate or two, etc. Also a more attractive box. A transparent cellulose wrapper helps a lot in the appearance of a high priced box of this kind.

Code 1N 31

Chocolate Coated Bar—5c

(Sample submitted for analysis.)

Milk Coating: Good for a 5c bar.
Center of Marshmallow: A little too light.
Biscuit: Tough. Did not eat well.
Flavor: Fair.

Remarks: This bar is large and makes a good appearance. The marshmallow is too light for good eating. The biscuit is tough and remains in the mouth after the chocolate and marshmallow have dissolved. It is a question whether this bar will get very far unless the biscuit is made so that it will eat better and not become

tough. Suggest the marshmallow be made a trifle heavier and a little drier. Also more flavor is needed.

Code 1O 31

Apple Fruit Paste—4 ozs.—25c

(Purchased in Chicago, Ill.)

Appearance of Package: Good. Quite attractive.

Box: Full telescope. White with printing in green, red and yellow. White transparent cellulose wrapper.

This candy is made up similar to Turkish paste, containing walnuts, apples being the base.

Texture: Good.

Flavor: Hardly any could be tasted.

Remarks: This type of candy requires plenty of flavor or it is not a particularly good confection. The price seems high for this class of goods.

Code 1 P 31

Apple Fruit Paste—1 lb.—$1.00

(Purchased at a department store in Chicago, Ill.)

Appearance of Box: Fair.

Box: One layer telescope tube box with printed top. White transparent cellulose wrapper.

This candy is made up similar to Turkish or fruit paste and contains walnuts.

Fruit Paste—

Texture: Good.

Flavor: Too mild, not enough apple flavor. In fact, hardly any flavor could be tasted.

Remarks: Suggest a better box be used, something a little more expensive and attractive looking. The flavor is very important in this type of candy. Some of the cups were stuck to the paste. At $1.00 per pound it seems rather high in price.

Code 1Q 31

Assorted Chocolates and Bon Bons (price not indicated)

(Purchased in candy store in Milwaukee, Wis.)

Appearance of Box: Good. Tied with blue ribbonzine.

Box: One layer telescope type. Light orange color. Printing in gold and blue.

Appearance of Box on Opening (after being mailed to New York): Pieces all scratched; some broken and badly dusted. Not properly packed for mailing.

Chocolate Coating: Dark.

Gloss: By the looks of some of these candies they originally had a good gloss.

Taste: Fair.

Strokes: Fair.

Milk Chocolate Coating—

Color: Good.

Gloss: Good.

Taste: Good.

Centers—

Orange Peel: Good.

Vanilla Cocoanut Caramel: Good.

Maple Cream: Good.

Cordial Strawberry: Good.

Lemon Turkish Paste: Good.

Nougat: Good.

Brazil: Good.

Molasses Nut Taffy: Good.

(*Continued on page* 64)

Eric Lehman Comments on

Christmas Package Assortments

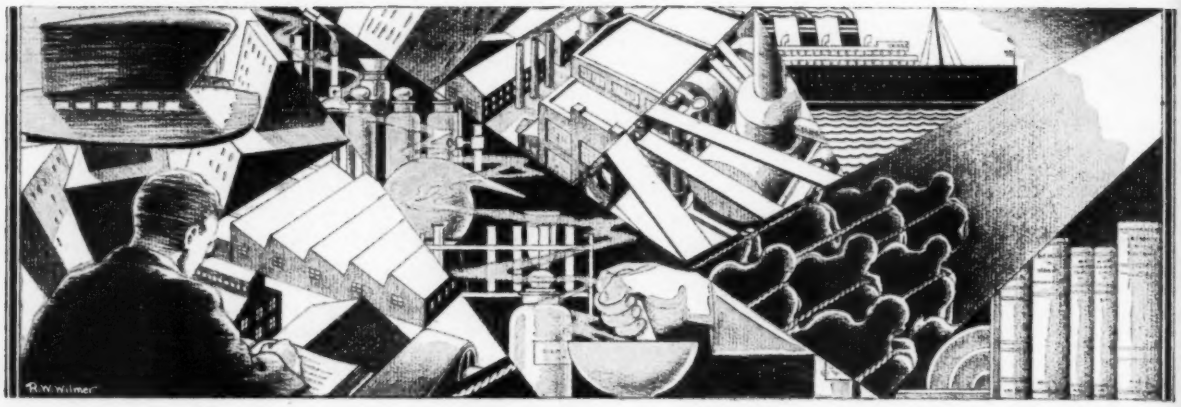
DURING the holiday season just past it was a pleasure to find among the low priced, two, three and five pound boxes of Christmas Assortments some really good chocolates. The excellence of some of these was indeed surprising. There were hand dipped goods, well dipped, with stringing neatly done. The coatings of some were exceptionally good and the packing and appearance of the boxes could not help but create a favorable impression. It was very apparent that some manufacturers had done their utmost to give all they could at the price charged. Producing goods to retail at 20c and 30c per pound is not the simplest thing to do even though raw materials be at a low price level. As might be expected there were the terrible exceptions and when we say terrible we mean terrible. Centers with no flavor, hard creams, caramels, butter scotch, etc., so hard they could not be eaten and enjoyed: chocolate coatings that tasted like anything but chocolate. Some of the boxes looked as though they were two or three years old. Probably they were! At least, the candies in them tasted that old. We can hardly expect much in quality at such ridiculously low prices if a profit is to be made. However, how much better it would have been had not some of the chocolates that were sold this year been produced. Making it possible for the consumer to purchase such vile stuff can do only harm to the industry in general.

I have spoken to a number of retail men whose opinion it is that the cheap five pound box of chocolates can be taken out of the market entirely and not be missed. They feel that a two, two and one-half or three pound box can be sold in most cases just as easily as a five pound box and at the same price obtained for the five pound assortment. There are some very nice two and two and a half pound boxes selling for a $1.00 to $1.25. At such a price a reasonably good line of chocolate can be made which will show a fair profit to the manufacturer. It is my personal opinion that almost anyone would rather have a two or two and a half pound package of good chocolates than a five pound package of chocolates unfit to eat.

I observed that many of the larger houses refrained from putting out a five pound box of the so-called Christmas chocolate this year. Apparently they have arrived at the conclusion that a sale without profit is of no value to them. After all, it just seems like good common sense to keep out of a market if it offers no profit. I have purchased a number of packages at prices which simply cannot show the manufacturer a fair profit. Business done on this basis cannot continue indefinitely.

The past year has been one that will not be forgotten by the candy industry or any other industry, in fact, for a long, long time. However, if we look around and really seek the facts, so far as our own industry is concerned, we will realize that the houses that have failed are mostly the one that have depended upon price cutting and free deals to get their business. The fact that they are no longer in business is proof that such methods are unsound. Today, we have to make good candy. The consumer is more fussy about what he eats than ever before. He will pay a little more for the foods he put into his stomach than he will for other less essential things.

Undoubtedly 1931 will see a few more candy manufacturers go out of business and you can depend upon it the cheaper houses will be the ones to go. The candy industry has needed a house cleaning for some time and by the looks of things it is getting it now. The manufacturer, who turns out good candy and sells it at a fair price, so that he can make a fair profit, is the fellow who will come out on top and stay there.



Monthly Digest of

CURRENT TECHNICAL LITERATURE

Honey Jelly: Its Preparation and Properties

By Glenn H. Joseph. Food Manufacture, vol. 5, p. 257.

THE stickiness of honey is a disadvantage but, by converting it into a transparent gel with the elasticity and ease of cleavage characteristic of pure fruit jellies, its healthful sweetness is more convenient to utilize. Several attempts have been made to gel honey by means of such agents as agar and gelatin, but without producing satisfactory products.

Successful results have been obtained with pectin, using the following formula: 20 lbs. extracted honey, 5 lbs. sugar, 10 lbs. water, 4 ozs. "100" grade citrus pectin, 1 fl. oz. standard acid solution (made by dissolving ½ lb. tartaric or 1 lb. citric acid in 1 pint of water). Heat the honey to 170° F. in a jelly kettle or steam or water-jacketed pan. In another jelly kettle, heat the water to 170° F. and add, with stirring, the pectin, which has been mixed thoroughly with 1 or 2 lbs. of the sugar. Stir and heat nearly to boiling to dissolve the pectin.

Add the remainder of the sugar and bring the temperature back to 170° F. This syrup is then added to the honey, which should be at 170° F. After the containers are ready, stir in the standard acid solution, avoiding the incorporation of an excessive amount of air. Immediately draw out the batch into the containers.

The added sugar is not intended to cheapen the jelly, but is used solely for the purpose of obtaining a product with a desirable texture and consistency. Good results are obtained only by using the proper kind of pectin and correct amount of acid. A strong flavored pectin should not be used. A tasteless and colorless dry pectin is best suited for yielding a jelly with a true honey flavor. Some pectin products are so acidified that they produce satisfactory fruit jellies with very little additional acid. These pectins should not be used for making honey jellies because they would introduce unknown and probably excessive amounts of acid, causing a sour honey jelly to result. Preliminary trials should be made on a small scale and if the formula given above produced a weak jelly with a certain lot of honey, the proportion of water used should be reduced to about 8 lbs. for the next trial. (The procedure described might possibly be adapted to production of honey jelly centers, thus making a novel addition to a candy assortment.—Editor.)

Changing Habits in Food Consumption

By E. G. Montgomery, Chief Foodstuffs Division, U. S. Dept. Commerce. Food Industries, vol. 2, p. 270.

CHANGING habits in the consumption of food are of interest to almost every one. To producers and manufacturers they give a key to long-time policies in the development of the industry. Dietitians think of the changes in terms of public health and welfare. Economists are interested to determine how the national income is spent.

The author discusses the changes in consumption in various groups of food products which have occurred in the last 30 years. Consumption of "cereals" (composed principally of flour and meal) has decreased to about two-thirds of the consumption of 30 years ago. Meat consumption appears to be practically unchanged, although it has fluctuated at intervals during this period.

The "fats and oils" group has shown a moderate increase.

Sugar has shown the most remarkable increase of all the standard food products, increasing from 61 lbs. per capita per annum about the year 1900 to 105 lbs. for the recent 5-year average. This is no doubt in part due to the rapid increase of manufactured foods in which sugar is used, such as canned fruits and commercial bakery goods. Sugar, along with flour, constitutes a very cheap food product, and it appears that we have made up a substantial part of the decrease of flour consumption by the increased use of sugar.

In addition, dairy products are growing in importance and fruits have been increasing in use. New ways of serving old foods are constantly being invented, such as converting wheat or corn grits into breakfast foods, or converting large quantities of fruits into canned or preserved products combined with sugar. Even the distributive agencies have been profoundly affected in the past 30 years. (The principal objective of the candy industry should be to obtain its share of this remarkable increase in sugar consumption. In other words, its principal competitors are the other large sugar-using food industries, rather than the non-sugar-using groups of industries mentioned.—Editor.)

Wrappings for Confectionery

By E. T. Ellis. Modern Packaging, vol. 4, p. 50.

THE author gives detailed descriptions, with working drawings, of paper wrappings for confectionery of various types produced by the average confectioner. Thus, foil wrappings with an opaque paper seal are in vogue for Easter eggs, transparent unprinted outer papers are wanted for keeping pocket packets dustproof, foil wrappings are again necessary for chocolate cigarettes and fancy chocolate in the form of horseshoes, etc., while in most cases the outer bands of milk chocolate bars and paper rings for chocolate cigars are of opaque and printed paper.

The following wrappings are described: one of the simplest two-piece wrappings for the packing of Easter eggs of modern size; a transparent paper wrapping which is proving popular at the present time for ¼ lb. pocket packets of assorted candy; two useful outer band wrappings used in the milk chocolate bar branch of the confectionery industry; a silver foil wrapping for a quintette of chocolate cigarettes already moulded into a cigarette packet or box, this again consisting of candy; a tinted foil sheet wrapping in which chocolate horseshoes are sold to the consumer; an opaque paper band for bars of nut-fruit candy, which are in turn wrapped in transparent paper; an attractive little paper ring or band for children's chocolate cigars.

Packing Quality Glacé Fruits

Anon. The Canner, vol. 70, p. 33.

THE author describes the methods used by French glacé fruit manufacturers. The personal element that enters into all stages of the process is very important. The success of Provençal glacé fruits in the market results very largely from great attention to detail.

Bleaching should be varied with the quality and color of the fruit. If the fruit is bleached too much, it turns to marmalade, and if the process is not sufficiently continued, the syrup ceases to penetrate. A popular method of bleaching is by the use of a pan with a double bottom, by means of which the fruit is steamed. This is done to prevent burning or bursting of the fruit. In bleaching fruits from which the skin has been removed, particular care must be taken to prevent them turning brown. To avoid this, they should be carefully thrown with a pin, used for this process, into fresh water slightly acidulated by means of lemon juice or vinegar, or better still, steeped in alum water.

Treatment with salt and vinegar serves to preserve the green color of greengage plums and, if the fruit becomes somewhat light in color, the tint will deepen when the sugaring stage is reached. Apricots, after being bleached are placed in syrup of gradually increasing strength in the following progression: 1st day, syrup 20° to 22° Bé.; 2nd day, 22-24°; 3rd day, 25-27°; 4th day, 28-30°; 5th day, 31-33°; 6th day, 34-36°. On the 6th day, with the syrup at 34°, a small quantity of glucose is added (from 5 to 10 per cent of the weight of the syrup) to prevent crystallization of the sugar. Various precautions used with other products, such as chestnuts (marrons glacés), chinois (a variety of small lemon), and cherries are also discussed.

Scientific Control of Grinding in the Chocolate Industry

By A. G. Avent and R. H. Morgan. Food Manufacture, vol. 5, p. 253.

FINE grinding is probably as essential a feature in chocolate manufacture as the quality of the raw materials. Since the recent introduction of lecithin as a fluidity control, a saving of 15 to 18 per cent of the total fat may be effected. In order to ensure a sensation of smoothness to the taste very fine grinding is necessary to make up for the reduction in cocoa butter.

The granulated sugar used is disintegrated by means of one of the many efficient machines available, and sieved through bolting cloth, or alternatively air-separated. The degree of fineness can be determined by microscopic examination or by sieving. In the usual process for chocolate manufacture the melangeur plays little part in reducing the size of the particles composing the chocolate mixture. The principal reduction in size of particles is produced by the refiner (usually 5 rolls). The efficiency of the refiner is best ascertained by microscopic examination of the chocolate.

The largest particles of cacao and sugar are the most important, because grittiness becomes apparent with quite a small proportion of coarse particles. For this reason a measurement of the largest particles of cacao and the largest crystals of sugar is made. In addition the crys-

tals of sugar which are representative of the greater proportions are measured, thus giving the average size of the sugar particles. Thus, in the case of a plain chocolate coating, it was found that the average size of the largest cacao particles was 80 microns (1 micron = 0.001 millimeter or 0.000039 inch), range 55 to 100 microns. The average size of the largest sugar particles was 60 microns, range 55 to 80 microns. The greater proportion of sugar particles averaged 27 microns in diameter.

Reports containing such data enable superintendents to keep a check on the various refiners and also to note the reduction in size of constituent chocolate particles at each stage in the process, thus keeping under control the grinding efficiency of the various machines. This method of microscopic examination can also be used for controlling the smoothness of fondant. The shape of the sugar crystals is also important, since a small sharp-edged crystal will feel as rough to the tongue as a larger rounded crystal. The examination of the various shapes and sizes of sugar crystals, as shown by the microscopic method, is a valuable aid in correcting any fault in cream making. Thus, a sample of cream (fondant) from an automatic cream plant (cooling drum system) gave for the size of the average largest sugar crystal 20 microns, and for the size of the greater proportion of the sugar crystals 8 microns.

Licorice

By John Uri Lloyd. American Journal of Pharmacy, vol. 101, *p.* 805.

THE author describes the growing of licorice and the production of licorice paste. The licorice plant abounds over an extensive area of the warm portions of Europe, including some of the Mediterranean islands, thence into Asia, where it is abundant in great sections of Turkey and Persia. Not only does licorice grow wild throughout large sections of the world, but it is also cultivated. However, it is so abundant in its native land, where labor is cheap, as to render its cultivation in most other sections unprofitable.

After being dug and dried, the roots are transferred to the factory and either ground coarsely and extracted, or baled by pressure and exported to the United States where the customs' duty prevents the profitable entrance of extract. Licorice paste is made in the country of origin in a primitive manner. The coarsely ground roots are mixed with water in iron or copper tanks and boiled. The decoction is drawn off and the dregs, after being boiled again, are finally squeezed by hydraulic pressure. The decoctions are mixed and boiled in tanks to the consistency of tar and are then concentrated by slow heat to a thick black magma which is poured hot into paper-lined wooden boxes. To concentrate beyond this point without a vacuum apparatus injures the product by reason of the high temperature. The use of vacuum, which reduces the moisture to 20 per cent, is a feature of some establishments.

The roots yield 40 to even 50 per cent of paste. The paste usually contains about 25 per cent of moisture and yields 21 to 22 per cent of the active principle, glycyrrhizin.

Comparative Candy Tests with German Potato Glucose and American Corn Glucose (Corn Syrup)

By E. Parow. Zeitschrift für Spiritusindustrie, vol. 48, *p.* 388; *Zeitschrift für Untersuchung der Lebensmittel, vol.* 58, *p.* 655.

COMPARATIVE tests made with German potato glucose and American corn syrup in the production of various kinds of confectionery showed that the corn syrup tended to acquire a light yellow color when heated, whereas the potato glucose remained completely colorless. This difference is ascribed to traces of oil and protein in corn syrup which are either not present or are present in negligible amount in potato glucose. (Glucose, similar to corn syrup, is manufactured in Germany from potato starch, instead of corn starch, as in the U. S. A.—Editor.)

The Choice of Chocolate Ingredients

By L. S. Fraser, Chief Chemist, J. S. Fry & Sons, Ltd. Food Manufacture, vol. 5, *p.* 259.

UPON receipt of a consignment of cacao by J. S. Fry & Sons from any source, a sample of 3 to 4 lbs. taken from 30 per cent of the bags in that consignment is submitted for further inspection and analysis, the latter involving the determination of the weight of 100 beans, moisture, percentage of shell, germ and nib and cocoa butter in the nib.

A review of the analyses made of the raw beans each season has shown many interesting facts. For instance, whereas Nigerian cacao four or five years ago was relatively inferior to that from the Gold Coast, it has steadily improved since the introduction of Government inspection and is today almost on a par with the best Gold Coast cacao. Further, mid-crop cacao normally rejected on account of size and appearance was found to possess an abnormally low cocoa butter content, this being one example of the generally established fact that there exists a relationship between weights of beans and their cocoa butter contents.

After purchase, the raw cacao needs to be carefully stored, and for this reason much attention has been paid to the construction of warehouses. It is considered essential in such warehouses to maintain an almost constant circulation of air, not only to inhibit the growth of mould on new crop cacao having a high moisture content, but also to inhibit the breeding of the cacao moth.

In the storage of the other main ingredient, sugar, particular attention must be paid to "sweatings", which can be avoided by suitable temperature control of the warehouse. The liability to sweat is most pronounced in the lower grades of sugar. A sugar suitable for good chocolate should give a clear, almost colorless, 25 per cent aqueous solution free from distinct flavors. Sugars possessing a brownish tinge and contaminated with traces of molasses may be used in the lowest grades of chocolate, but are unsuit-

(*Continued on page* 64)

[Many a crime has been committed against the consumer through the re-use of "scrap" materials. Admitted. Yet there are some unsalable goods which can be transformed into profitable merchandise by the experienced candy maker, just as the frugal housewife and the skillful chef can create tempting dishes from the "leftovers" of the day before. The purpose of this department is not to encourage a cheapening of quality but to show the candy maker how profits can be legitimately reclaimed from some of this otherwise waste material.]

SCRAP, so-called, has caused producers of candy many a severe headache. We wonder if any of those engaged in the manufacture of candy have been entirely immune to its disturbing effect. Well, hardly! In speaking of scrap we do not refer to plant waste, necessarily, i. e., soft batches, hard batches, ends of batches and other waste or spoiled materials which, even under ideal manufacturing conditions, cannot be altogether avoided. What we do refer to is the scrap resulting from returned chocolates that have bloomed badly (perhaps one or two centers have blown); chocolates returned in poor condition due to careless packing and handling; chocolates returned for a hundred and one other reasons. This unsalable merchandise is dumped on the manufacturer's hands and in most cases he has to accept the jobber's or retailer's word that proper care of the goods was exercised while on his shelves. Placing responsibility for the condition of these returned goods is oftentimes a question for debate. They may have been stored in places that were too hot or too cold, in damp cellars, or displayed in windows and showcases where they were subjected to unfavorable climatic conditions.

If we deviate from our original theme for a moment it is only to mention one or two examples we encountered during the past summer which provide typical illustrations of some of the causes of the returned goods evil. We visited a number of retail stores and interviewed either the manager or the owner of the establishment. The resulting discussions brought out the significant fact that a large number of them knew little or nothing of the proper care of candies. At what temperatures chocolates could be kept and where they could be kept, were points of information that were foreign to them. One man said he "kept his candies under the counter in the hot weather"; another store manager who had had a few cans of hard candy left unsold dumped them out in pans and put them in his showcase. He couldn't understand why they all stuck together and why he could not sell them. Another store owner had this to say: "The jobbers load me up with too much goods. If I buy only a few boxes I get no free deals and if I order enough to entitle me to the free goods it leaves me overstocked and I can't turn it over quick enough." This "loading up" of a dealer—and the free deal is just a tempting morsel designed to make him succumb to this dangerous practice, often against his better judgment—is one factor which contributes all too generously to the manufacturer's quota of returned goods. It is also one of the reasons why more chocolate covered goods are not sold during the summer. Besides finding ways for utilizing these returned goods the manufacturer has another job cut out for him and that is to educate the retailer, and if necessary, educate the jobber to educate the retailer, on how best to care for the various types of candies he handles. If he were to do this he would be going a long way toward the solution of his returned goods problem.

How Can We Utilize Our Scrap?

Now, even with our educational department on the job eight hours a day, five and a half days a week, we will still have some of this unsalable material to dispose of as best we can. It is the purpose of this department to discuss each month the various ways of accomplishing this. As these discussions will necessarily cover a wide variety of goods it might be timely and most valuable to apply them, so far as possible, to the classes of goods coming up for analysis in each month's Candy Clinic. We will try to work out the best means of using these candies when they become scrap.

Disposing of the Cheaper Chocolates

Since the January Candy Clinic is devoted principally to the low grade Christmas assortments we will consider the disposal of this class of goods after it has been scrapped. The first thing to do is to pick out the assorted chocolates—that is separate the pieces flavored with peppermint, wintergreen or any other strong flavor from the rest. These strongly flavored pieces are likely to be the most difficult to use up. Perhaps the best way is to use them in making a spiced piece, such as fruit cake, spiced creams, etc. The remaining candies from the Christmas assortment can then be used for making caramels, fudge or chocolate paste. When using this kind of scrap be sure it is not burned or scorched when remelted. In making caramels use at least 50 per cent of scrap, 25 per cent of corn syrup and 25 per cent of new sugar. Use about one pound of hard fat to every ten pounds and cream or milk to suit. If you are not going to cast this piece the entire batch can be put in the kettle and cooked up. If you intend casting it in starch it will be necessary to strain the batch before it becomes too thick.

Fudge can be made in about the same way except that enough fondant will have to be added in order to obtain the desired texture. About thirty-five to fifty pounds of fondant to every one hundred pounds of stock will make a good fudge to cast or cut. Add as little new raw materials to the scrap as possible, for

by doing so the scrap will be disposed of the more quickly. If possible do not use any new raw material.

The quickest way to dispose of returned chocolates is to give them a thin coating of chocolate and sell them at a reduced price. If the goods have not dried out or become cracked, this is an ideal way of rehabilitating them.

Such goods can also be used in preparing chocolate syrups, pastes, etc., for fountain use. To every one hundred gallons of syrup, fifty gallons of the melted chocolates can be added. Boil well and add sufficient water to boil out any flavor that may be in your centers.

(How have you disposed of your returned goods and other scrap materials? Five dollars will be paid for each practical idea on the utilization of plant waste acceptable for publication in The MANUFACTURING CONFECTIONER. Complete working instructions should accompany your suggestions. Send all ideas to the New York Office of The MANUFACTURING CONFECTIONER, 303 West 42nd street.)

Technical Digest

(*Continued from page 62*)

able for fine chocolate, and especially milk chocolate.

No matter how many times a milk chocolate prepared from milk powder may be refined or how many hours it may be melangeured or conched, it will not resemble a chocolate prepared directly from fresh milk. It may be argued that a very fine, smooth milk chocolate can be prepared from spray process milk powder, but the writer has always confirmed the generally accepted opinion that spray process milk powder is more liable to become rancid than is roller process powder, even after its inclusion in chocolate.

A few years ago the use of cocoa butter substitutes was very common but they are now being rapidly discontinued. The introduction of lecithin in chocolate is beneficial from a dietetic standpoint. Even though the addition of lecithin may not entirely prevent the formation of fat bloom, it does definitely save cocoa butter by reducing the viscosity of chocolate and this alone is sufficient to warrant the serious attention of the manufacturer.

Sales Conference Finds Foote & Jenks Ready for 1931

Foote & Jenks, flavor specialists of Jackson, Mich., held their annual conference of salesmen and house executives December 29 and 30 at the Elks Club and the Otsego Hotel, Jackson. The two days were devoted to a discussion of plans and policies for 1931 with bowling and a banquet as the entertainment features. "The entire personnel present is prepared for a year of intensive service-giving, intensive selling and good business," Paul W. Thurston, who acted as chairman of the conference, tells THE MANUFACTURING CONFECTIONER.

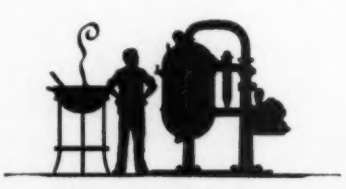
Mellon Institute Announces Industrial Fellowship on Sugar

Dr. Edward R. Weidlein, director, Mellon Institute of Industrial Research, has announced that the institution has lately begun a broad investigation into possible industrial uses for raw and refined sugar. The research will be carried on by a Multiple Industrial Fellowship that will be sustained by The Sugar Institute, Inc., of New York an organization that represents the cane sugar refiners of the United States.

The comprehensive program of investigation will be supervised by Dr. George D. Beal, assistant director of Mellon Institute, and by Dr. Gerald J. Cox, senior industrial fellow. They and the scientists who will be under their direction in endeavoring to find and to develop uses for sugar in various industries will have the close advisory collaboration of Dr. Leonard H. Crether, the sugar specialist who is the head of Mellon Institute's department of research in pure chemistry.

According to Dr. Weidlein, various studies made by private research workers have already indicated results of industrial promise; these findings will be carefully studied in the laboratories of Mellon Institute. Most of these proposals relate to applications for sugar in such technologic practices as wood preservation, textile finishing, and the manufacture of adhesives. Sugar is thought to merit searching investigation as a basic raw material for employment in various branches of chemical industry.

Four chemists, headed by Dr. Cox, have begun the initial scientific research of the Industrial Fellowship. Additions will be made to this staff, as needed, from time to time.



The Candy Clinic

(*Continued from page 59*)

Butterscotch: Good.
Chocolate Paste: Good.
Green Almond Paste and Chocolate Paste: Good.
Green Almond Paste and Chocolate Paste Roll: Good.
Vanilla Buttercream: Good.
Maple Buttercream: Good.
Vanilla Nut Buttercream: Good.
Cordial Cherry: Broken, dry.
Solid Chocolate and Nuts: Good.
Strawberry Cream: Good.
Filbert Cluster: Good.
Apricot Jelly: Good.

Bon Bons: Dry and hard.

Centers—
Cocoanut:
Chocolate Paste: Not up to standard.
Marshmallow: Not up to standard.
Brazils: Not up to standard.

Milk Chocolate Centers—
Butterscotch: Good.
Walnut: Good.
Nougat: Good.
Vanilla Cream: Good.

Assortment: Good.

Remarks: Suggest a larger box with partitions be used as the contents were in poor condition when opened. A very fine package could be made up if a partition were adopted. Suggest bon bons be crystallized as they were not fit to eat. A piece with violet sprills is considered cheap. Suggest they be left off this piece. A transparent cellulose wrapper is needed. It would be better to use a good ribbon than the ribbonzine.

About Honeybees

IN view of the increasing use of honey in candy the following information concerning the industrious honeybee is interesting. It comes to us from The Department of Agriculture.

"An unladen honeybee can fly about 25 miles per hour, the United States Department of Agriculture estimates, but seldom flies faster than 15 miles per hour. When weighted with nectar, it often flies as rapidly as when unladen, although it sometimes stops to rest on a long journey. Sometimes bees with heavy loads become exhausted when flying over lakes or rivers, fall into the water, and are drowned. A heavily loaded bee sometimes makes an ungraceful landing at the apiary, bumping into the hive or dropping to the ground before it. The load of nectar which the bee brings to the hive varies with the density of the nectar, but the average load is about 40 milligrams, or about one-half the weight of the bee."

Mr. S. P. Scott Now With Atkinson Chocolate Co.

Mr. S. P. Scott, for a number of years treasurer of the Hooton Chocolate Company and Hooton Cocoa Company of Newark, has tendered his resignation, effective December 31, 1930, to join the organization of the Atkinson Chocolate Company of Brooklyn, N. Y.

Candy Executives' Club Planning Educational and Social Program

AS the Candy Executives and Allied Industries Club grows, its officers have been testing out that formula for Success which calls for equal parts of Enthusiasm and Hard Work. They have found it to be substantially correct. However, according to Gordon Wilcox, President of the Club, they expect to add at least one more ingredient to this formula at their next meeting,—and that is Organized Knowledge. When unlimited quantities of each of these three elements are available to draw upon it is felt that the future of the Club will be assured.

Organized Knowledge is their immediate aim. With that in mind an educational program is being arranged which will include lectures and the reading of papers at each meeting, on various subjects of interest to the members. These will be presented by men of recognized authority in their particular fields.

A tentative schedule of subjects for discussion has been outlined. It is subject to revision, prior to its adoption at the next meeting, but even in its present rough form it furnishes some idea of the character and scope of the Club's educational program. The subjects to be covered are substantially as follows:

I. History of the Confectionery Industry.

A. Ancient.
B. Medievnl.
C. Modern.

II. Raw Materials.

A. Sugars.
1. Sucrose.
a. Source.
b. Preparation and Purification.
c. Chewical and Physical Characteristics.
2. Invert Sugar and Honey.
3. Corn Syrup.
4. Dextrose, Levulose, Maltose and Lactose.

B. Water.
C. Starches.
D. Gums, Gelatines, Egg Albumen, Pectin, Etc.
E. Milk, Cream and Butter.
F. Chocolate.
G. Nuts.
H. Flavors.
I. Colors.

III. Machinery and Operations.

Containers, Kettles and Cookers, Thermometers. Temperature Controls, Pumps and Pipe Lines. Beaters and Mixers. Coolers, Crystallizers. Sugar Rollers, Pans and Pan Work, Depositors, Starch Bucks, Printers, Molding Machines, Cutters. Humidifiers, Dryers Enrobers, Cold Beds, Ronsters.

IV. Products.

A. Fondant.
1. For Centers.
2. For Dipping.
B. Cordials.
C. Fudges.
D. Caramels.
E. Gums.
F. Jellies.
G. Marshmallows.
H. Nougats.
I. Hard Candy.
J. Taffies.
K. Molded Chocolates.

V. Packaging.

A. Wrappings.
B. Boxes.
C. Cans.
D. Cartons.
E. Cases.

VI. Storage and Cleanliness.

A. Temperature.
B. Humidity.
C. Pest Infestation.

An interesting schedule? You bet it is, and that isn't half of it! Right now questionnaires are being sent out by the Entertainment Committee to all members, requesting their cooperation in planning the social features of the Club's activities for the coming year.

In addition to the following list of members the Club has about twenty-five applicants awaiting admission. Those interested may write for application blanks to the New York Office of this publication, or to Claude J. Covert, Secretary of the Candy Executives' Club, % The Vacuum Candy Machinery Co., 15 Park Row, New York City.

MEMBERSHIP LIST.

T. P. Lathrop, Bradley Smith & Co., New Haven, Conn.
H. J. Maloney, Sweets Co. of America, Inc.
F. J. Slavin, Mirror Candy Stores, Inc.
H. C. Baum, National Equipment Co.
W. F. Moore, United States Testing Co.
G. H. Wilcox, The Nulomoline Co.
J. M. Schneider, Cushmans, Inc.
G. W. Headley, Lofts, Inc.
W. H. Haug, Mason, Au, Magenheimer Candy Mfg. Co.
C. A. Dillon, White Stokes & Co.
C. J. Covert, Vacuum Candy Machinery Co.
P. Laureys, Lofts, Inc.
J. P. Booker, Applied Sugar Laboratories, Inc.
A. Tehel, Rigney & Co.
W. F. Schlesinger, E. Greenfields Sons.
R. N. Cadle, Childs Co.
J. J. Ballweg, Novia Candy Co.
C. Corelli, Bronx, N. Y.
T. J. Neilan, Quaker Maid Co., Inc.

Elected November 12, 1930.

Thomas F. Sullivan, Confectionery and Ice Cream World.
Val G. Powell, International Confectioners Publishing Co.
R. W. Wilmer, The Manufacturing Confectioner Publishing Co.
James Brooks, Rockwood & Co.
Wm. J. Lamar, Novia Candy Co.

Elected December 10, 1930.

George Kendricks, 1997 Davidson Ave., New York, N. Y., % Rigney & Co.
Harry McClurg,, % Rockwood & Co.
Francis M. Waters, 315 Egmont Ave., Mt. Vernon, N. Y., % Confectioners' Journal.
J. J. Maurice.
George Entwistle, % Mirror Candy Co.
George A. LeVecque, 6623 Ridge Blvd., Brooklyn, N. Y., % Williamson Candy Co.
Paul Katzenstein, % Kay-White Products, Inc.
David O'Connor, % Penick & Ford Sales Co.
Dr. J. W. Schlegal, Nat. Sugar Refining Co.
Oscar W. Stout, Park & Tilford, New York.
N. A. Gianini, Milliards Conf. Co., New York.
Dr. J. M. Krno, Research Chemist, Corn Products Corp.

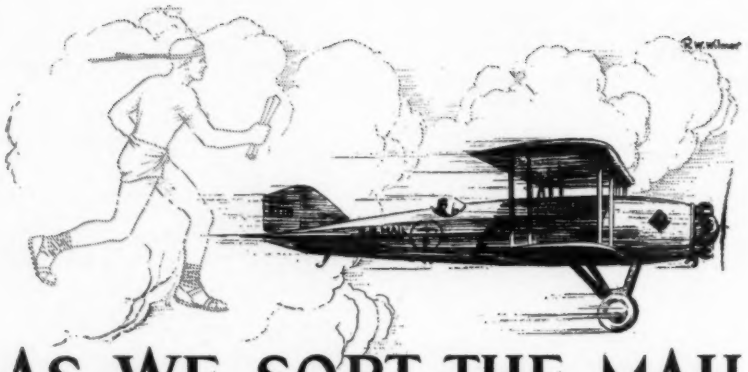
Paris Turning to Rayon for Candy Bags and Boxes

A new emphasis is being placed in Paris on rayon materials for candy boxes and bags. Some of the new boxes take the form of the 1830 bridal bouquet, and the reticule bag form, so reminiscent of this period, is also predominant.

Rayon satin and a few rayon moires are the favored materials for this type of bag. They are usually fastened by a rayon draw-string and decorated by a water-colored painting or old-fashioned embroidery. The Maison Marquis, one of the oldest chocolate houses in Paris, is showing these handbags in shirred rayon taffeta with a ruffle in velvet ribbon on the edge.

Chinese decorative motifs still appear on a number of lacquered boxes, but they are not as prominent as the modern designs which also appear in lacquered motifs in Duco over wooden boxes. Boxes made of old bindings are also still in evidence and houses like the Marquise de Sevigné and Foucher are displaying very fine collections of them. In the same idea are very old-fashioned boxes which reproduce medieval jewel boxes, in carved pewter incrusted with Pyralin beads.

Cellophane in many colors is sometimes being combined with rayon satin in the boxes of a more modernistic tendency. Sometimes the cellophane is disposed in small applied motifs on the satin background, while other times it appears as a panel, with a plain white satin frame.



AS WE SORT THE MAIL

Questions addressed to this department will be answered by us from month to month. Readers are invited to make this a forum for informal discussion of subjects of general interest to the candy industry.—The Editor.

We very much appreciate your letter of the 15th. We are getting one or two copies of your Manufacturing Confectioner, and are glad to see the emphasis you exert on research, which has been a matter of deep interest to us for a number of years.

We are also highly illuminated with your analyses of various products, including our own, and we noticed our item of last issue.

We hope you will continue to keep up the good work.

J. K. F., Chicago.

We acknowledge receipt of your letter of recent date calling our attention to the Candy Clinic Section of THE MANUFACTURING CONFECTIONER in the present issue, which we have seen.

We consider this idea a very good one, and helpful toward the improvement of merchandise on the market today.

With reference to our own particular product, we believe your suggestion of a thicker coating upon our cream bars is a good one, and shall adapt measures at once to place a heavier coating upon them.

With reference to our cocoanut confections to which your article refers as becoming somewhat yellow, we wish to explain that this cannot be controlled for the reason that we use strictly fresh cocoanut exclusively and oil from this cocoanut has a tendency, after being absorbed by the cream, to yellow it. If these goods were made from a dry product, or an adulterated one, there would be no difficulty such as this of their becoming yellow.

H. J. G., New York.

How About It?

AS A CANDY buyer it seems to me the most illogical thing in the world that manufacturers and jobbers should hold conventions, employ sales managers, hire salesmen, advertise, write sales letters, send samples and even make personal visits for the purpose of selling more candy. Yet, in almost every case, these same manufacturers and jobbers allow a condition to exist that must mean the loss of thousands of dollars' worth of business each year.

I refer to the inefficient clerks who greet us buyers when we try to place an order by telephone. This clerk usually knows absolutely nothing about the goods in question. She does not know when the boss will be back. She cannot understand who is calling and she goes on popping her chewing gum regardless of the fact that there is business slipping away. Just try to place an order by telephone. It ought to be possible, but I, for one, am tired of the difficulties attending such a procedure. I could, I believe, get into the White House more easily than I can get a chance to talk with anyone in authority in a candy factory. I can dispose of five hundred pounds of candy in less time than it takes to explain to a dumb and disinterested telephone clerk who I am, whom I wish to speak to and what about. When she has digested that information I must, because she is the only one available, try to tell her what kind of candy her firm makes and tries to sell and what, with her kind permission, I should like to buy at the moment. Whew! Boy! SOME JOB!

I am not advocating higher wages for telephone clerks, but I am advocating a higher degree of intelligence in the phone service between factory and buyer. I do business with hundreds of different candy concerns and I can truthfully say that I know only one place where I can give an order over the telephone with any degree of satisfaction. The young woman who takes telephone orders in the factory referred to is a saleswoman of high order. She not only knows her firm's line but she invariably suggests other goods that you may just remember you can use. I asked a member of the firm that this woman works for just what he figured she sold in a year. His reply was astounding. He assured me that she increased sales each year to the extent of about fifty thousand dollars. Not an amount to be sneezed at by any company. Of course, all manufacturers do not throw away that much each year because of the exasperating telephone service, but most of them do waste that much in proportion to business done.

When candy salesmen call on us buyers they cannot always land an order at the time but their goods may make an impression which will impel us to order some later on—by telephone—and then the fun (?) begins.

HENRY LONG,
Candy Buyer, N. Snellenburg & Co.,
Philadelphia, Pa.

For your question box: "What are the most outstanding things detrimental to the confectionery industry?"

Personally, I think the term "glucose." I think that corn syrup should be called corn syrup and not by some inferior term, such as glucose. I think that nothing has done as much damage as the word glucose, and think that all wholesale houses and such concerns should sell and bill corn syrup as corn syrup.

H. R. G. (New York).

To the best of our knowledge all of the refiners of this product refer to it as corn syrup or more familiarly as "C. S. U." (meaning corn syrup, unmixed). However, there is no reason why any partciular onus should attach to the word "glucose," since glucose is derived from the Greek word "glukos," meaning sweet. Furthermore, chemically pure glucose is none other than our old friend "dextrose," the nor-

mal blood sugar of the human body. Commercial glucose, i. e., the liquid product to which you refer when you speak of corn syrup, is really a mixture of this glucose and another equally wholesome carbohydrate-dextrin.

Your point is well taken in that something ought to be done to dispel the confectioners' very obvious embarrassment over the current misunderstanding of this useful product. We will see what can be done to correct the situation, and thank you very kindly for your letter.

Sweets of the Orient

ALTHOUGH sugar cane and crystallized sugar probably originated in the Orient, many centuries ago, Oriental sweets are still largely gathered "in the rough." Manufactured candies are luxuries, made for those who can afford them. Perhaps the day will come when increased buying power will open up markets for American candy manufacturers that will exceed anything known today in more advanced countries. Some of the Oriental candies are listed below; perhaps they will suggest new varieties for our own consumers. The taste for sweets seems to have been born in the human being, no matter where he lived!

The *Maoris* of New Zealand, before the white men came, used to chew the sweet gum that exudes from the trunks and branches of the *manuka*. They also shook out the honey from flax flowers, catching it in vessels.

Vegetables, wild honey and flowers are sources of many sweets made today in the Orient. Sorghum cane produces the brown sugar used. It is related by Prof. William Johnson Sellas, in his "Ancient Hunters," that the aboriginal Australians used to discover bee-hives by catching a bee as it gathered honey (carefully avoiding the business end), affixing a little fluff of down to its body, and then following it to the hive. Perhaps a bee, once so raided, would next time lead the human "racketeer" to a rival hive!

Sugar is made from raisins in many countries of southern Europe and western Asia. Vanilla as a flavoring for chocolate was known by the Asiatics generations ago.

In the Philippines sugar is sold in little cakes at roadside stores. These cakes much resemble in size and color our Vermont maple sugar cakes. American candies are being imported in increasing amounts.

An odd sweetmeat of the Philippine refreshment booth is *mongo*—resembling our sundae—made of canned corn, sugar, condensed milk and chopped ice. Not only is honey consumed when, as and if, but the bees and their larvae are considered tidbits that lend added flavor!

New Booklets

CONSUMERS' LEAGUE WHITE LIST—An 8-page folder giving the League's White List of candy manufacturers in New York, Cleveland, Cincinnati, Pittsburgh and eastern Pennsylvania. Revised as of December, 1930. Also a 4-page pamphlet describing the aims and purposes of the White List. Issued by the Consumers' League of New York, 150 Fifth avenue, New York City. Free on request.

A MESSAGE WORTHY OF YOUR CAREFUL CONSIDERATION—This is the title of a new 8-page folder describing the products of Dodge & Olcott Company, 150 Varick street, New York City. Free on request.

TRAFFIC INSTRUCTION GUIDE—Over 50 pages of information and instructions, including a number of the actual forms used by various carriers in the transportation of confectionery and chocolate products from point to point. Prepared by William R. Moore, traffic manager of the Eastern Confectioners' Traffic Bureau, 117 Liberty street, New York City. Distributed to members.

I WISH WE KNEW EACH OTHER BETTER—The wish expressed in the title of this little 8-page pamphlet is partly fulfilled by a perusal of its contents. It depicts graphically the organization, facilities and products of Spencer Kellogg & Sons Sales Corporation, of Buffalo, N. Y. Copies are free on request.

WHAT A WORLD THIS WOULD BE WITHOUT GELATIN—This is the title of an instructive 12-page pamphlet giving a number of interesting facts about gelatin. It has just been issued by the Edible Gelatin Manufacturers Research Society of America, 55 West 52nd street, New York City, and copies will be supplied upon request at no cost.

The Collins-Hencke Candy Co. Consolidates with the General Candy Co.

The General Candy Company and the Collins-Hencke Candy Company will be consolidated, effective January 1st, 1931, and thereafter operated as the Collins-Hencke Candy Company, Ltd., 620 Folsom street, San Francisco, California.

The trade names and brands of both companies will be retained; goods will continue to be manufactured under the original formulas and there will be no change in the personnel or management.

Herbert Brown and Fred M. Ganz, who have headed the General Candy Company since 1920, will join the Collins-Hencke organization.

Duchacek Joins Racine

Mr. Ralph Duchacek, who was associated with the National Equipment Co. for seventeen years, and the last two years with J. W. Greer Co., has recently joined the sales force of the Racine Confectioners' Machinery Co., Racine, Wisconsin. He is well known throughout the Middle West and will continue to cover that territory.

A Food of the East Comes West

(*Continued from page* 41)

cial and dietetic point of view. In a subsequent article I hope to be able to explain more specifically the best method of making use of this recent discovery in so far as it applies to the manufacture of candy. Speaking as a medical man, I can safely say that we now have the means at hand of manufacturing candy that will dissipate those absurd attacks made on it by dentists, cigarette manufacturers, and others, all the more dangerous and unfair because they have a very slight basis of truth.

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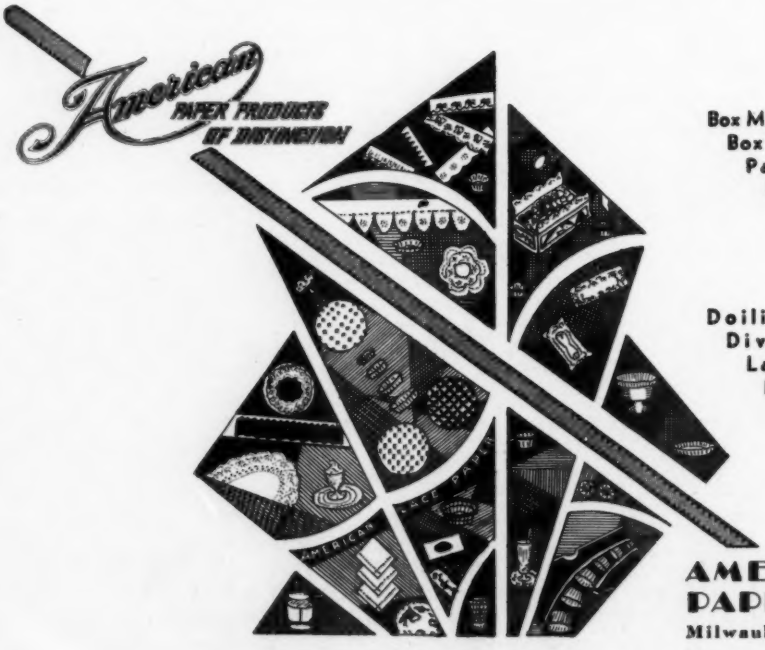

Box Mats
Box Laces
Pail Laces
Pail Liners
Bon Bon Cups
Fruit Box Mats
Embossed Napkins
Sundae Dish Liners

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